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HISTORY OF FOWLING

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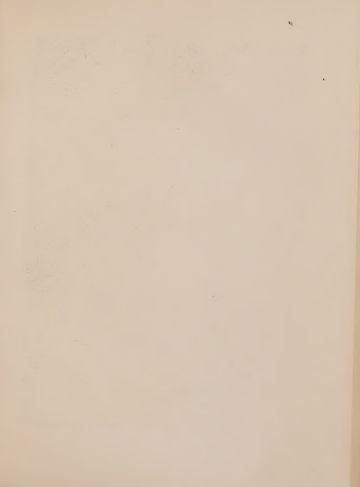
FOR

DAVID DOUGLAS.

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Painted by Lancret.

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LESSONS OF THE MANY ATTEND
TO THE SPEECH
OF THE

REV. H. A. MACPHERSON M.A.

* MEMBER OF THE HOUSE OF COMMONS IN 1832
* THE HOUSE OF COMMONS IN 1832

A
HISTORY OF FOWLING

BEING AN ACCOUNT OF THE MANY CURIOUS
DEVICES BY WHICH WILD BIRDS ARE OR
HAVE BEEN CAPTURED IN DIFFERENT
PARTS OF THE WORLD

BY THE

REV. H. A. MACPHERSON, M.A.

MEMBER OF THE BRITISH ORNITHOLOGISTS' UNION, AUTHOR OF
"THE FAUNA OF LAKELAND," &c., JOINT AUTHOR OF
"THE FUR AND FEATHER SERIES," &c.



EDINBURGH: DAVID DOUGLAS
MDCCCXCVII

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THESE PAGES
ARE DEDICATED BY PERMISSION
TO
PROFESSOR ALFRED NEWTON, F.R.S., F.Z.S.
AS A SMALL TRIBUTE TO HIS RARE ERUDITION
AND AS A GRATEFUL ACKNOWLEDGMENT
OF THE MANY KINDNESSES
WHICH HE HAS CONFERRED UPON HIS BROTHER DISIN.

PREFACE.

IN the days of romance and chivalry any amusement which afforded court-gallants the society of fair women was likely to excite the patronage of royalty. Small wonder need we feel that, when splintering of lances was impossible, brave and accomplished noblemen wiled away their intervals of enforced idleness by exhibiting their skill as fowlers to the graceful dames whose smiles they strove so earnestly to win.

One of the happiest exponents of old rural life in France is Nicolas Lancret. Several dainty specimens of his brush are hung in the xv. Gallery of the Louvre. The picture called "*Le Printemps*," reproduced as our own frontispiece, belongs to the collection. It represents a party of ladies and their gallants, who have pitched the toils of a clap-net upon the banks of a beautiful stream. The cavaliers, to whose care the duties of *Le Chasse* have been assigned, are attired in grey wideawakes, and appear to be engrossed in their responsibilities. The upper figure holds to his lips a bird-call, with which he is attempting to entice the wild birds into the centre of the nets. His comrade holds the cords of the nets, indeed, he seems to be in the act of reversing the nets. The expression of anxiety depicted upon his face is enhanced by the picturesque colours of his dishevelled dress. A blue scarf wound around his waist relieves the sombre effect of his dull yellow suit and russet hose. The ladies seem tolerably indifferent to the business of the hour. Two of the group affect to be absorbed in admiring a basket of delicate pink roses.

Another of the pretty triflers is crouching behind a bush attired in a green bodice and orange skirt. Her companion stands beside a tree which hides her from the birds. The half-pleading fashion in which she raises her little hands seems to deprecate the cruelty of the gay

chasseurs. The sentiment embodied in this masterpiece was not limited to the upper classes of Continental Europe. The Archaeological Museum at Lille contains some fine pieces of tapestry. Among the number is one which illustrates a homely form of fowling. A well-to-do burgher and his comely spouse are designed as attending upon the "Vogel-hende." The domestic character of the scene is emphasised by the presence of two sturdy boys, who play beside their parents.

Many similar instances of the genuine hold which the pursuit of little birds once exercised over popular feeling could, no doubt, be found in the museums and galleries of Europe.

The Italians appear to be almost the only European people who still regard the resources of fowling as affording a prime amusement, to be enjoyed by all classes as opportunity permits. When not engaged in sport of a more attractive order an Italian gentleman supervises in person the fowling carried on upon his property. He breakfasts with his family in a picturesque cottage which overlooks the land-mets. The wife finds diversion in her tiny breakfast room. The servants wait and give such attention as is needed. Then master conceals an appetising omelet, or assists in driving any stray birds into the walls of net-work which hem in the "Uccellanda." This recreation is only indulged in during the late days of autumn. Myriads of Thrushes are then crossing the plains of Lombardy. The leaves are changing and the landscape glows with the most wonderful assortment of colours.

It is a far cry to the islands of Japan. But thither we must journey in imagination, if we are to find another race of men who share the aptitude of the Italians for snaring and netting all kinds of birds with child-like enthusiasm. This statement will be better appreciated if I reproduce one or two of the letters sent to me by Japanese students at Tokyo —

The answer asked of The catching bird. — In Japanese the manner of catching bird is variety, and the object is separated to two parts, — the amusement and the occupation. The amusement part is taken by the bird-gun, branch of tree, butcherbird, falcon, and trap. The occupation is taken by pole, owl, horned owl, and net.

1. The manner by bird-gun [is to] carry a hound with us as we hunt the best, and let him search it and carry to us when we have shot a bird, pheasant, dove, wild geese, wild duck, species of snipe and other bird which men eat well.

2. The manner by branch of tree is very complicate to explain but I will explain it. We go on a place where many birds seemed to come, with a decoy bird in a cage, and hang [it on a] branch of a tree, and place properly, around, and up or down of the cage, branches of the tree, attaches birdlime to other birds [which] visit him as their friend and sit upon it, then we take a refuge and stand a sight [i.e., hide and watch]. If for that time any other bird comes and attach to the birdlime, we rapidly will get out from our refuge and run pender to catch the birds. This manner is amusing especially. Birds which belong to [i.e., are caught in] this manner are nightingale, canary, robin, mejiro, quail, butcherbird, &c.

3. The manner by the butcherbird is assimilated to the manner mentioned upon. We go on a place where the butcherbirds will come, with a butcherbird of decoybird which was he saw his eyes by slender string, and put him upon branch of cross that attached birdlime [i.e., mount the decoy upon the cross-piece of a stake which is smeared with birdlime, *cf.* p. 80]. Then we take a conceal, standing a sight, and at times let him cry. When other butcherbird will come to vex poor blind butcherbird, for butcherbird has a valiant nature, and sits to a post of the birdlime, we will quickly run to there and catch him.

4. The manner by falcon. We send for that forward a falcon accustomed well, and let him seize him when a stork or pheasant &c. come to our sight.

5. The manner of trap. This manner contain many.

6. The manner by pole be taken especially by low man [i.e., a professional birdcatcher] as a occupation, for in this manner [he] can catch many birds. The pole is slender and long, and birdlime is attached its foremost part [i.e., to the extremity]. With this he go on a place where many birds is singing, and attach secretly to the pole them. Birds which he catch by this manner especially is sparrows.

7. The manner by owl is assimilated to the manner "by branch of tree," but not place only to cage [i.e., we do not place the owl in a cage]. The manner of setting him [the owl] is assimilated to manner of the butcherbird, but his eyes not be sew with the string, for he can not see all side through whole day time, though other bird do not come to him for fight, but come to sew him. Skilled man of this manner can catch almost twenty in one day.

8. The manner by horned owl is all assimilated to the manner mentioned upon.

9. The manner by net is a manner that catch water and song bird. When we wish to catch water bird by this manner we will lay the net among water where many water birds will come, and we take a refuge, stealing a sight. When we wish to catch song bird, we will extend a net in a forest where song bird will well cross, and take an order like before. You may not do all understand me, for my pen do not accord to me.

The concluding observation of Mr Yokoyama not unfitly expresses the difficulty of giving the details of Japanese fowling upon a few sheets of notepaper. I have reproduced his letter exactly, because it shows how easily our mother tongue lends itself to unconscious caricature.

Mr S. Fukushima agrees with the last writer in his general definitions of Japanese fowling:—

The subject of bird catching is divided into two classes—one of them for a duty, and another for amusement. These catches are not only made by first class of mankind, but second class and the next. But the catches for their duty are made for by third class. The Sparrow is caught by the pole armed with birdlime to its point, or by the arrow of an argum. These catches want to be up in the catching, and may catch it for their duties. The methods of catching the bird is generally as the flying pheasant is caught by sudden fire and the pigeon is fired by gun. And these catches are made by rich men for amusement or another men for the duties.

The pleasure of writing the present volume has been greatly enhanced by the sympathetic support accorded to the author by friends and correspondents in distant regions of the world.

I am indebted to Professor Ima and Mr Chikunoshige of Tokyo for their kindness in procuring nets and other adjuncts of Japanese fowling. Mr F. W. Syon of Shanghai, Mr Charles Hise of Kansas, Mr Harold Littlehale of India, Mr W. W. Smith of Ashburton, New Zealand, and Mr W. H. Watel of Algiers all interested themselves in obtaining specimens of fowling engines for the use of this work. Count Chinoza Yarbava, Professor Gutsch, Mr H. H. Worthington, Mr Hise and Mr Littlehale all obtained photographs for the purpose of illustrating strange or little known systems of fowling. Mr Thomas Ayres, Mr G. H. Foran, and Dr Percy Kendall sent me notes from different parts of Africa. Mr John

Benson made special inquiries for me in Norway, as did Mr O. V. Applin in the interior of Tunis. Mr A. L. Crane took much pains to obtain reliable statistics about fowling from different parts of Greece. Mr Douglass of St Petersburg lent yeoman service in regard to the Russian aspect of fowling. Dr Hasell and Mr Pritchard sought and found most welcome information both in the wilds of Canada and on the shores of the Pacific. Mr Tom Carter sent me entertaining notes from the Australian bush. Mr Blausa favoured me with hints on Dutch fowling.

The pen and ink sketches which accompanied Mr Blusickierski's notes upon fowling in Sclernia and Poland gave a special value to his remarks.

The History of Fowling found several good friends in Denmark. Mrs Kinney searched the public libraries of Copenhagen for treatises bearing upon my researches and showed remarkable acuteness in translating technical details. It was a great advantage to secure the co-operation of so excellent a Scandinavian scholar. Mr O. Winge supplied some hints upon the literature of the subject, while Mr Hagerup and Dr Helms presented me with a Bird-arrow procured specially from Greenland. I shall never forget the delightful reception accorded to me at the old-world castle of Count Camozzi Vertova of Bergamo. Count Camozzi Vertova is an accomplished man of science, and he spared no pains to explain to me the details of the "Cecchande" upon his properties. He gave me a very happy impression of Italian hospitality, which was more than confirmed by my intercourse with the various members of his family.

The genial welcome which awaited me at the hands of Professor Giglioli in the city of the Arno, more than compensated for the disappointment which I experienced when my doctor ordered me to quit Italy before my investigations into the fowling systems of that country had been completed. The detailed account of Quail-netting which Dr Cerio forwarded through Professor Giglioli recalls some well-known lines:—

"So, I guessed, ere I got up this morning,
What change was in store,
By the quick rattle-down of the quail-nets
Which woke me before

I could open my shutter, made fast
With a bough and a stone,
And look thro' the twisted dead vine-twigs,
Sole lattice that's known,
Quick and sharp rung the rings down the net-poles,
While, busy beneath,
Your priest and his brother tagged at them,
The rain in their teeth."

The systematic arrangement of birds made use of, as far as possible, in this work is partly based upon that which my colleagues and I adopted in writing the *avian* portion of the *Biological Natural History*. Had the present work been intended only for scientific readers, I should have made several changes in the nomenclature as it stands, but in the interest of the general reader I have employed the best known genera.

The chief burden of illustrating my traps and snare has fallen to the share of Mr J. J. Hodgson, of the Carlisle School of Art. It was necessary to have the more technical portions of the feeding engines drawn under my own supervision; hence the desirability, which was also a privilege, of employing a local draughtsman. Mr J. B. Simpson of the Carlisle School of Art, has also done his best to work from my instructions. His sketch of Hybrid Red and Black Grouse (p. 348) portrays the two birds which Mr M. Huthart was so good as to give me for the Carlisle Museum. The specimens were exhibited before the British Ornithologists' Club, and described in my paper "On the Interbreeding of the Red and Black Grouse" (*The Annals of Scottish Natural History*, 1897, pp. 15-17).

The introduction of a few tailpieces of wild birds into the list of engravings was effected in the belief that they would add life to the volume. Nothing could exceed the courtesy or helpfulness of my kind publisher, Mr William Douglas, who adopted every suggestion that I could offer him.

H. A. MACPHERSON.

ALLONBY VICARAGE, CUMBERLAND,
7th August 1897.

INTRODUCTION.

PART I.—THE LITERATURE OF FOWLING.

Almost every notable ornithologist has contributed some item of information to the "History of Fowling." The first British naturalists who drew attention to this side-branch of our beloved science were Ray and Willughby. Those who follow in their footsteps have shown no desire to abandon the example of their predecessors. Linnaeus, Pallas, Bechstein, Naumann, Brehm, Pennant, Bewick, Montagu, Alexander Wilson, Audubon, Savi, Yarrell, Gould, Bowley, Newton, Dresser, Harting, Bullock, Finsch, David, A. O. Hume, Collett, Tristram, Salvadori, Giglioli, and Alfred Wallace have all alluded to the devices of the fowler. The names of such distinguished workers may well be held to justify my labour of love in furnishing the public with a careful *survey* of this fascinating subject. Many books have been consulted in its preparation. If I venture to omit the names of the majority, it is out of no disrespect to my fellow-students. It is simply because such a catalogue would occupy a great number of pages; for my plan has been to read through every ornithological work that I could find, in the five or six languages which are all that I can personally translate. I earnestly hope that my friends will have the charity to attribute any omissions to the pressing exigencies of space. The imperative necessity of compressing my materials into the smallest possible bulk has compelled me to omit many passages which it would have been pleasant to quote, had such a course been possible without swelling the size of the work to unwieldy dimensions. The accompanying list will explain the authorities to which my text is most indebted.

1. ENGLISH LITERATURE.

A *Book of Fishing with Hooke and Line*, and of all other instruments thereunto belonging. Another of *Sundrie Engines and Trappes* to take Polecats, Bazaards, Rattes, Mice and all other kindes of vermine

and beasts whatsoever, most profitable for all Warrimors, and such as delight in this kinde of sport and pastime. Made by I. M. London. Printed by John Wolfe and are to be sold by Edward White dwelling at the little North doore of Paines at the signe of the Gunne. 1590. sm. 4to.

The earliest English work which I have had an opportunity of examining is Leonard Mascall's *A Booke of Fishing with Hooks and Lines* first printed as a small quarto in 1590. Three other editions followed in 1596, 1600, and 1606; but I have not been able to purchase a copy of any of the four editions. The first part of the book was reprinted by Thomas Satchell in 1884. This, however, contains but meagre information upon fishing being mainly 'a compilation made by a practical angler from the "Treatyse of fyshynge wyth an angle," from *L'aprentice de poisson* of Charles Estienne and other sources.' The second part of Mascall's work bears largely upon fowling. The author explains with manifest gusto the "order for setting and drawing the chaffe-nette, for Crows and Sparrowes," explaining how the net and staves should be hid in covered trenches, concealed from the prying eyes of birds "with some short straws or chaffe." He details in like manner an approved method of capturing "Havens, Pyes, and Crowses."—"Ye shall take of *Nix croquet*, so called which ye shall buy at the Apothecaries, they are gathered in the sea, and are as hard as a piece of boate pence, and a quarter of an inch thick or more. Those which are the whitest within are counted for the best, when ye will occupy any, doe,—or cut one small in thinnie slices then beate it into powder if ye can, the finer it is the better, and the sooner will make the Crowses or Pyes to fall. Put of the sayde powder into a piece of flesh, and so lay it abroad, and yee shall soone see Pie, or Crowe, or Haven take it. Then must ye watch him a while after, and ye shall perceive him to fall downe, then must ye follow to take him. But if yee let him remaine one quarter of an houre, he will recover againe, for this *nix croquet* it doth but make them drunke, and dylie for a tyme. The Kyte I have not seene taken for he will cast it up againe." Mascall discourses in the same quaint style upon various devices for capturing other birds, several of which are alluded to in the body of the present work.

A Jewell for Gentrie. Being an exact Dictionary or true Method to make any man understand all the Art, Secrets, and worthy Knowledges belonging to Hawking, Hunting, Fowling, and Fishing. Together with all the true Measures for Winding of the Horne. Now newly published, and beautified with all the latest experiments that are known or practised at this Day. Printed at London for John Helme, and are to sold at his shop in St Dunstons Church-yard in Fleet Street, 1614. Sm. 4to.

This is another rare quarto in black letter. Mr J. E. Hunting, the emble Librarian of the Linnean Society, has discovered reasons for suggesting that the author was one Thomas Smitham, whose initials accompany his Dedication, "To the Right Worshipfull Mr John Tooke, one of the Auditors of his Maesties Courts of Wards and Liveries." The author, wherever he may have been, treats amusingly of the nature and properties of "fowles in the ayre," and sets down "some rules belonging to fowling, to help to further some in that practise, which would faine learne, and hath no teacher." He imparts to his pupils the best method of making birdlime from belly bark, together with other practical hints concerning his favourite pastime.

Hungers Prevention: Or, The whole Art of Fowling by Water and Land. Containing all the secrets belonging to that Art, and brought into a true Forme or Method, by which the most ignorant may know how to take any kind of Fowle, either by Land or Water, Also exceeding necessary and profitable for all such as travell by Sea, and come into uninhabited places: Especially, all those that have any thing to doe with New Plantations. By Gerrase Mulkham. London, Printed for Francis Grove, and are to be sold by Martha Harrison at the signe of the Lambe at the East end of St Pauls Church. 1655.

The foregoing is the title of my copy, but an earlier edition was published in 1621. The latter differs only from the second edition in the title of the printer and booksellers. "Hungers Prevention" is a diminutive work, dedicated to "The Honorable Knight Sr Edwin Sands, and to his much honor'd and worthy friends, Mr Thomas Gibbs Esquire,

Mr Theodore Galston Doctor of Physick and Mr Samuel Ratte Esquire, Adventurers, and Noble favourers of the blessed Plantation of Virginia. The pompous style which pervades "The Epistle Dedicatory" is soon forgotten when the author enters upon the theme of Fowling in real earnest. Two out of seventeen chapters are devoted respectively to "The use of the Water-Dogge" and to "the setting Dogge, his election and manner of training from A Whelp, till hee come to perfection." A third chapter treats of "the Fowling Deere." The remainder of the work, which covers 285 pages, is entirely given up to the usages of Fowling.

The Gentleman's Recreation. In Two Parts. . . . The second Part treats of Horse-manship, Hawking, Hunting, Fowling, Fishing, and Agriculture. . . . Printed by S. Roycroft for Richard Blount, dwelling at the upper end of Dutchy-Lane near Somerset-House in the Strand. 1686. Folio.

This work, like most of those which followed it, was mainly a compilation, based on a translation of the *Rusee Jeuneurs*, together with Markham, but the description of setting Woodcock bears marks of personal observation.

2. GERMAN LITERATURE.

Gründliche Anweisung alle Arten Von Vögeln zu fangen, einzustellen, nach dem Geschlecht und andern Merkmalen zu unterscheiden, zahm zu machen, abzurichten ihre merckwürdige Eigenschaften zu erkennen, sie fremde Gesänge zu lehren, und zum Aus und Einfliegen zu gewöhnen. Nebst einem Ah Anhang von Joseph Mitelli Jagdhust. Aufs neue ganz umgearbeitet herausgegeben von Johann Matthaus Bechstein. Mit vielen Kupfer Kupfern Nürnberg und Altdorf bey J. C. Momath und J. F. Kussler. 1797.

The above title is that of the only copy of this octavo work which I have been able to procure. Having vainly tried to obtain a copy of the first edition through the booksellers, I sought the assistance of Dr Paul Leverkus. This gentleman has kindly sent me the full title of the first edition, which agrees in substance with the foregoing, but proves

that the work was first printed at Nuremberg in 1754. This edition, like that of 1797, was unaccompanied by the names of the authors. The later edition had the advantage of being edited by Bechstein, who appears to have embodied much of the text in his own work, *Naturogeschichte des Stubenvogels*. The *Arten Von Vögeln* is, in reality, a monograph of the birds kept in captivity by German bird-fanciers; but much space is devoted to the methods of capturing the species referred to in the text. A considerable store of information regarding German methods of feeding will be found in the three volumes of G. F. D. Winckell's *Handbuch für Jäger*, Leipzig, 1820-1822.

Naturogeschichte der Stubenvogel oder Anleitung zur Kenntniß und Wartung Derjenigen Vogel, welchen man in der Stube halten kann, von Johann Matthäus Bechstein. Mit Kupfern. Gotha, bey Carl Wilhelm Ettinger. 1795.

This author's name is well known, but the English translations of his work exhibit inferior scholarship. The instructions for capturing birds bear a close resemblance to those contained in the *Arten Von Vögeln*, the second edition of which appeared two years after the first edition of the *Stubenvogel*.

Der Vogelfang. Eine gründliche Anweisung zur Einrichtung des Dressel- und jeder andern Art des Vogelherdes, des Trankherdes, des Leichen-streichens, der Schneuse, der Schlingen, des Fangens mit dem Knaus, der Locke, der Heberhutte, des Wachtel-—und des Rebhühnerfangens, des verschiedenen Netze-—und Raubvogelfallen u. s. w. nebst genauer Beschreibung aller zu fangenden Vogel, für Guts-—und Waldbesitzer, Jäger, und Jagdliebhaber, Freunde des Vogelfanges und der Stubenvogel, mit Benutzung der in Europa gewöhnlichen Fangarten, nach eigenen Erfahrungen von Christian Ludwig Brehm, Pfarrer zu Reuthendorf und mehrerer gelehrten Gesellschaften Mit- und Ehrenmitglieder. Mit einem vollständigen Realregister. Ein integrierender Theil der allgemeinen Encyclopädie der gesammten Land-—und Hauswirthschaft der Deutschen. Leipzig, in Baumgartners Buchhandlung. 1836. 8vo.

The work which bears this peculiar title is only a thin octavo of 158 pages. It abounds in details about the "Vogel-heide," and has obtained a wide circulation in Germany. A considerable portion of this work is occupied with descriptions of the plumage of common German birds.

Naturgeschichte der Deutschen Vogel, einschliesslich der Sämmtlichen Vogelarten Mittel-Europas. Von C. G. Friedrich, Stuttgart. Verlag von Julius Hoffmann, 1891. Royal 8vo.

This excellent work is professionally based upon Naumann's *Naturgeschichte der Vogel Deutschlands*, and has passed through several editions. The fourth edition, which is the only one that I possess, contains a good many stray notes upon "Vogel-fang." It also includes an entire chapter entitled "Fang der Vogel" (pp. 249-258) which gives a fair idea of the principal methods of birdcatching in vogue in Germany.

3. FRENCH LITERATURE.

Histoire De La Nature Des Oyseaux, Avec Leurs Descriptions & portraits, retirez du naturel. Divisee en sept livres. Par Pierre Belon Du Mans. A Paris, En La Grande-Salle Du Palais, en la boutique de Gilles Corneut. 1555. Avec privilege Du Roy. Folio.

Pierre Belon was the father of French ornithology. The text contains a good many incidental references to fowling.

Les Ruses Innocentes, Dans Les Quelles Se Vont comment on prend les Oyseaux passegers, & les non passegers & de plusieurs sortes de Bestes à quatre-pieds. Avec Les Plus Beaux Secrets de la pesche dans les Rivieres & dans les Etangs. Et La Maniere De Faire Tous les Rets & Filets qu'on peut s'imaginer. Le tout divise en cinq Livres, avec les figures demonstratives. Ouvrage tres curieux, utile & recreatif pour toutes personnes qui font leur sejour à la campagne. Dedie à Monseigneur l'Archevesque de Tours. Par F. F. P. R. D. G. dit le Solitaire Inventif. A Paris, Chez Pierre Lamy, au Palais, au second pilier de la grand' Salle, au grand Cesar. M.D.C.L.X. Avec Privilege Du Roy. 4to.

My copy of the first edition of this work contains the assertion that

the author was "Le Frère François Frostain," written in a neat hand upon the title-page. Mr J. E. Harting assigns the authorship to Fortin De Grandmont (F. François). He does not discuss the reasons leading to this conclusion in his *Solitaire Accipitraria*, but no doubt he possesses the best possible grounds for his surmise. The "Solitaire Inventif" observes, in his preface, that the friends at whose request he published his book assured him that those critics, who might find fault with him for spending his leisure in explaining innocent wiles to effect the capture of birds and fishes, would have disapproved of the life of the Apostles, since the saints, after being called to the first dignity in the Church, devoted part of their time to similar occupations. It was urged upon him also that the tradition which represented John the Baptist as solacing an anchorite career with the company of pets, justified his relaxing his mind during those hours which his Rule had not assigned to the exercises of religion. He clutches these excuses for writing so carnal a treatise with the reflection that his vow of poverty rendered it incumbent upon him to place at the service of the public all the secular knowledge which he had acquired prior to embracing the religious life. He takes credit for assisting game-preservers by his exposure of the malpractices of poachers and the nature of their illegal engines. The first book of the *Ruses Innocentes* deals with the manufacture of nets. The next discusses "Des Oyseaux Non Passagers." A third treats of "Des Oyseaux Passagers." The remainder of the work is occupied with essays on fishing and trapping quadrupeds. The illustrations of fowling engines are placed at the end of the volume. The only later edition of the *Ruses Innocentes* in my possession is a small octavo, printed at Amsterdam in 1695. In this the illustrations are much reduced in size, and are bound at the end of each division of the work. I am sorry that, on several occasions, I have inadvertently printed the title of the "Solitaire Inventif" with a final v.

Arceptologie Française, ou Traité Général de toutes les ruses dont on peut se servir pour prendre les oiseaux : avec une collection considérable de figures et de pages propres à différentes chasses : par Bulliard. Neuvième Edition, Revue, Corrigée et augmentée par J. Cussac. A Paris, Chez Corbet, Libraire, Quai Des Augustins, No. 63. 1822. 8vo.

The title just cited belongs to my working copy of the *Arnéptologie Française*, a treatise which should rank with the *Roxas Insectes*, since these two works, taken together, represent the essence of French fowling. The earliest edition of the *Arnéptologie Française* appeared at Paris in 1778. The plates were reproduced in the first two parts of the edition of 1822. Bulhard describes himself as having possessed from childhood a passion for "les différentes classes aux Oiseaux." He therefore treated of his subject with enthusiasm.

Richesses Ornithologiques du Midi De La France, par MM. J. B. Jaubert et Barthélemy-Lapommeraye. Marseille, 1859. 4to.

This fine work treats only incidentally of fowling. It contains a description of Thrush-catching and Quail-netting in the vicinity of Marseilles.

4. SWISS LITERATURE.

Conr. Gesneri Tigurini Medicinæ Et Philosophiæ Professoris in Schola Tigurina, Historiæ Animalium Liber III. qui est de Avium natura. Francofurti, 1585. Folio.

My copy is one of the numerous editions which followed the first issue of this epoch-making book in 1555. A good many allusions to fowling are scattered up and down its pages. Gesner does not treat of the subject with the fullness of Aldrovandus.

Ornithologie de la Savoie, par J. B. Bailly. Paris, 1853. 8vo.

This capital text-book of Swiss birds furnishes a good many short notes upon Fowling.

5. GREEK LITERATURE.

Die Vogel Griechenlands. A. Linderhayer, Passau, 1860. 8vo.

This little work refers once or twice to Greek methods of Fowling.

6. SPANISH LITERATURE.

I have unfortunately failed to obtain any old or little known books upon Fowling in Spain. A few notes upon the subject will be found in Colonel Irby's *Ornithology of the Straits of Gibraltar*. Messrs Chapman

and Duck have likewise embodied some pertinent observations in their *Wild Spain*.

7. ITALIAN LITERATURE.

L'Uccellatura A Vischio di Pietro Angelo Bagueo Comodo LXL dell' Accademia Fiorentina, E Pubblico Professore in Pisa, Poemetto dell' Esametro Latino, all' Endecasillabo Italiano trasferito, ed interpretato. Folio.

This poetic description of Fowling was printed at Florence in 1568, along with another Latin poem. It was reproduced at Venice in 1735, as shown in the title cited above, together with the *Il Balaniere* of Tasso. The scientific value of the poem is marred by the preponderance of classical conceits.

Il Canto De GL' Avccllie; Opera Nova Di Antonio Valli Da Todi, Dove Si Dichiaa La Natura di sessanta sorte di Vcelli, che cantano per esperienza, e diligenza fatta più volte. Con il modo di pigliarli con facilità & allenarli, cibarli, domesticarli, ammansarli, e guarirli delle infermità, che à detti possono succedere. Con le loro figure, & vinti sorte di Caccie, cavate dal naturale, da Antonio Tempesti. Con Privilegio di S. Santità per Anni X. In Roma, Per gli Heredi di Nicolo Mutij. Con Licenza de' Superiori MDCI. 4to.

This work is little known and I imagine that very few copies were printed. Its chief interest is, that it formed the unacknowledged basis of Olina's work. For Olina, having become possessed of the plates of the earlier work, proceeded to reproduce as his own both the text and illustrations of Di Valli. In justice to Olina, it should be remembered that he added considerably to the text, and took care to reject the poorest of the plates, replacing those which he withdrew by illustrations of finer finish. The ornamental border which accompanies this History of Fowling is copied from the frontispiece of Di Valli's work. It is intended to illustrate the various adjuncts of Italian Fowling. The work is dedicated to Cardinal Rusticucci. It consists of fifty pages of printed matter, and the same number of plates, besides a single illustra-

tion inserted in the text. It is printed upon very poor paper. This fact may partly account for its rarity, as it would be very easily torn or mutilated.

Uccelliera, ovvero discorso Della Natura, E Proprietà Di Diversi Uccelli
È in particolare di que' che cantano, Con Il Modo Di Preserleigh,
conservargli allenargli, e mantenergli. E con le Figure excate
dal vero, e diligentemente intagliate in Roma dal Tempesta, e dal
Villamena. Opera Di Gio: Pietro Oliva Napolitano Dottor di
Legge Dedicata al Sig. Cavalier Dal Pozzo. Con privilegio del
senno pontificio. In Roma, Appresso Andrea Fer. MDCXXXII
Con licenza de Superiori.

Oliva's work appeared in two editions, the second of which was probably posthumous. The edition of 1622 seems to have been made up at different times. There are two copies of this first edition in the British Museum. These differ *inter se*, and from my own copy, in the illustrations of fowling. The larger of the two British Museum copies reproduces the plate of capturing Wood Pigeons with lined twigs from *De Valli's* work. This illustration is replaced in my copy, and in the smaller British Museum copy, by a different rendering of the same idea. Again, the illustration of netting small birds by the water-side published in the larger copy with which my copy agrees in this particular, is replaced in the smaller Museum copy by a picture of two small nets, one of which is set over the water. This last plate reappears in the second edition of the work published in 1684. Again, the large copy of 1622 tallies with my copy in reproducing *De Valli's* representation of fowlers driving birds into a 'Ragna' with an artificial knee. In the smaller Museum copy this plate is supplemented by another, in which a lady and her gallant appear as spectators. This last reappears in the edition of 1684. It is possible that a larger number of copies of the first edition would reveal still greater discrepancies. The edition of 1684 is printed on large paper, and enriched with ornamental borders.

Delle Uccie Di Eugenio Ramusoli Bresciano Libri Quattro, Il Quinto
Libro della Villa, 1626. 4to.

The first edition of this pretty little work appeared in 1621, but my

copy was published five years later. Both text and illustrations are founded for the most part on cotemporary works.

La Caccia Degli Uccelli di Vincenzo Tanara da un manoscritto inedito
Della Biblioteca Comunale Di Bologna per cura di Alberto Rocchi
Della Lega, Bologna. 1866.

Tanara wrote this work between 1622 and his death, which occurred prior to 1669. He was a diligent reader, as well as passionately devoted to field sports. He studied much in the library of Cardinal Francesco Sforza, who died in 1624. Tanara published various treatises. His work upon fowling remained in MS until printed in 1866 from the original manuscript. This last consists of 350 pages, divided into three books. The first of these deals with engines of the chase. The next describes various forms of hunting wild animals. The third book, and the only part printed, treats of Italian birds under a variety of headings. The editorial preface to this posthumous work supplies an analysis of a MS entitled *Il Cacciatore Bologna*, written by Bartolomeo Alberti. This is preserved in the University Library at Bologna. It bears the date of 8th January 1716. I have not been able to examine the MS., but it undoubtedly treats very fully of the Italian methods of Fowling. It appears to cover ground that had already been occupied by Di Valli and others.

Caccia giacosa, invenzioni di Gioseffo Maria Mitelli Pittore Bolognese, da lui effettivamente sperimentate e dedicate a chi si diletta della Caccia, Bologna, 1745, in-4to.

This scarce work is to be regarded rather as a literary curiosity than an exact treatise upon capturing any particular species of birds. It covers some familiar ground, but the writer seems to have piked himself upon his inventiveness. As our purpose is to study the methods of Fowling handed down from antiquity, the devices described by Mitelli are not of particular service. Any one who wishes to see the numerous plates which accompanied this work will find them reproduced as an appendix to *Artes et Mypsi*. They first came under my notice through the accident of Selivanovski having reproduced them in *The Sportsman's Book for Capturing Animals and Birds*.

Ornitologia Toscana del dottore Savi, Pisa, 1827-1831. See.

This work has been a favourite of mine for many years, though few British ornithologists seem to know its practical value. It contains a considerable amount of information about Fowling in Tuscany.

Avifauna Italiana, compilata dal dottore Enrico Hillyer Gaglioli, 1886-1891.

A good many notes upon Fowling are embodied in the four volumes which Professor Gaglioli has already published. It is to be hoped that the Italian Government may soon find funds to print additions to this valuable series.

8. NORWEGIAN LITERATURE.

Dyrtylv i Norge, af Kristian Gløsen, Kristiania, 1894.

This work was brought to my notice by Professor Collett on account of the excellent chapter upon Thrush-catching which it contains. Being compelled to reside at a great distance from any scientific library, and having no knowledge of Norse or Danish I thought it best to enlist the invaluable assistance of Mrs. Kinney of Copenhagen. This lady, who is a most accomplished linguist, has taken an enormous amount of trouble to search the public libraries of Copenhagen for treatises bearing upon the methods of Fowling adopted in Greenland, Iceland, Faroes, and Scandinavia. She has supplied me with exact translations of a large amount of material. I find, however, that the late Mr Lloyd had already embodied the best treatises on Fowling in his *Game Birds of Sweden and Norway*. It must be remembered that he acknowledged in general terms his indebtedness to Scandinavian writers. It would have been better, perhaps, if he had taken the trouble to give some detailed account of the authors who supplied so large a part of his text. But as his excellent work is accessible to everyone, I have endeavoured to avoid covering the same ground. When identical passages are quoted by both Lloyd and myself, it should be inferred that we both drew our information from the same source.

9. RUSSIAN LITERATURE.

Mr Norman Douglass of St Petersburg most courteously instituted an inquiry into the literature of Russian Fowling. He obtained the

titles of several works which profess to bear upon this subject, but unhappily they are all written in Russian. The only work which I was advised to have *speedily translated*, for the benefit of the present work, is a scarce book, the title of which, if translated, reads, *The Sportsman's Book for Capturing Animals and Birds*. It appeared in four volumes, printed at Moscow in 1813 and 1814. The publisher was Selivanovski, whose name I have quoted in my text. The preface of the first volume is signed by V. Lavshin, who probably compiled it from various sources.

10. JAPANESE LITERATURE.

The Rev. L. R. Chalmersley of Tokyo, an old college friend, kindly supplied me with two copies of a native work, recommended to him and to Mr Alan Weston (for my benefit) by Professor Ijima. The earlier edition was published in 1892, the other more recently. My friend Mr Yoshida, of Selwyn College, Cambridge, has taken the trouble to translate the greater part of this work for me, in addition to which we read it carefully together. He tells me that its title may be rendered *Illustrated Methods of Hunting*, by Messrs Hironki Oda and Denzo Miyaguchi. So far as ornithology is concerned, the two issues of this work are practically identical.

PART II.—THE ART OF FOWLING.

THE craft of the fowler is an occupation which has been handed down to us from remote antiquity. Hence it follows, that an investigation of the principles upon which it is based will help us towards a comprehension of the resources of men to whom the elements of civilisation are entirely unknown. For it may be taken for granted, that a human being, who exists under conditions akin to barbarism, is likely to depend for subsistence upon the skill which he has learnt to develop from childhood in outwitting wild animals. Further, the advantages, sexual or otherwise, which accrue from personal adornment, frequently induce the half-naked savage to deck himself with the brightest plumes which he can pluck from the birds which fly through the jungles amid which his hunting expeditions are chiefly carried on.

I. WEAPONS OF ATTACK.

Weapons are not indispensable to the successful exercise of Fowling. There is a story of an Esquimau boy whom his parents intentionally exposed upon Beevoort Island, in the belief that he would speedily succumb to starvation. The pangs of hunger sharpened his wits. "He succeeded in catching partridges = Ptarmigan with his hands; an act never before or since known to have been done by Innuits" (*Hall, Life with the Esquimaux*, Vol. II p. 391). Reports of similar experiences reach us from Indian sources. But even birds learn to avoid open danger in the majority of cases. Hence it is natural to employ a missile of some kind to tell a bird, especially if it should happen to be perching upon the top of some tall forest tree. A clod of earth or a piece of wood are usually within reach of the hunter. The simple character of the weapon does not mar its usefulness. Of the perfection to which a primitive weapon may be advanced, we have an excellent example in the boomerang of the Australian black. The rounded balls which compose the bolas of South American hunters illustrate the deadly character which such weapons assume in the hands of skilled operators.

Reference has been made at page 229, to the rounded stones used by the natives of Alaska for entangling Wild Geese. The natives of Greenland were also alive to the usefulness of such weapons, as may be seen by referring to ethnological collections. But the Greenlanders depended chiefly upon the hand-dart or bird-arrow prior to the introduction of guns by Danish settlers. The use of the spear, which is a modification of the same idea, is referred to at page 256. But most primitive hunters prefer to secure that their weapon travels home with unerring precision. The reason for this is obvious. It is reasonable enough that the Greenlander should hurl his bird-arrow into a flock of Eider Ducks, because he has the assistance of his companions and some of the arrows are pretty certain to effect their purpose. Similarly, it suits the Australian black to hurl his boomerang or other weapon into a flock of screaming Cockatoos. But the hunter who finds his lot cast in wide areas of forest or jungle, in which bird-life is probably local, finds it necessary to provide some means for propelling a light dart straight to a distant point. Hence the American Indian practises the use of a bow from earliest boyhood. The sinew of a deer, the elastic branch of a young

tive, these readily supply an arrow with the required momentum. Alternatively, the hunter sends his dart through a hollow cane—a plan of action familiar to most people. The shot-gun now takes the place of the blow-pipe in the Indian reserves, but in Audubon's day the "blow-gun," as he terms it, was in general use. He tells us how these weapons are prepared by the Indians. They cut the straightest canes, perforating them by forcing a hickory rod through the internal partitions which intersect this species of bamboo, and render them quite smooth by passing the rod repeatedly through. The cane is then kept perfectly straight and is well dried, after which it is ready for use. We learn from the same authority that "Splints of wood or more frequently of cane are then worked into tiny arrows, quite sharp at one end, and at the other, —instead of being feathered, —covered with squirrel hair or other soft substance, in the manner of a bottle-brush, so as to fill the tube and receive the impulse imparted by a smart puff of breath, which is sufficient to propel such an arrow with force enough to kill a small bird at the distance of eight or ten paces" (*Gen. Brev.*, Vol. i. p. 43).

Rates figures and describes the "Zandia-tana," or blow-pipe, used by all the Indian tribes on the Upper Amazon for collecting birds. "It is generally nine or ten feet long, and is made of two separate lengths of wood, each scooped out so as to form one half of the tube. To do this with the necessary accuracy requires an enormous amount of patient labour, and considerable mechanical skill, the tools used being simply the thinnest teeth of the Paca and Cutia. The two half tubes, when finished, are secured together by a very close and tight spirally-wound strapping, consisting of long, flat strips of Jacitira, or the wood of the climbing palm-tree, and the whole is smeared afterwards with black wax, the production of a *Melipona* bee. The pipe tapers towards the muzzle, and a cup-shaped mouth-piece, made of wood, is fitted in the broad end." Mr. Bates adds that the arrows used with this blow-pipe are made "from the hard rind of the leafstalks of certain palms, thin strips being cut, and rendered as sharp as needles by scraping the ends with a knife in the tooth of an animal. They are winged with a little oval mass of samama silk (from the seed-vessels of the Silk-cotton tree, *Eoulandra samama*), cotton being too heavy. The ball of samama should fit to a nicety the bore of the blow-pipe; when it does so, the arrow can be propelled with such force by the breath that it makes a noise almost as loud as a pop-gun

on flying from the muzzle." *The Naturalist on the Amazon*, Vol. II. p. 236). But it must not be supposed that the use of the blow-pipe is confined to the New World. It is employed in Southern Asia, and appears to be widely known. Mr W. Nason informs me that a form of blow-pipe is extensively used in the Malay States for the purpose of killing birds, under the title of "Sumpitan." Its function is to direct small pellets against any bird which the hunter deems to be coming down. The Sumpitan can be used for more formidable purposes than that of killing little birds. Mr Charles Hose discovered that numbers of monkeys are shot with this weapon in Borneo, for the sake of the bezoar stones found in their intestines. The monkey-hunters are supplied with poisoned arrows, which are blown from the Sumpitan. Mr Hose also obtained a Hornbill which had been shot with the Sumpitan (*Geographical Journal*, Vol. I. p. 205).

2. THE STALKING-HORSE OR OTHER ENGINE.

The manipulation of weapons of attack, such as the bow and arrow, has frequently been facilitated by the use of a trained horse or bullock. The animal interposes its body between the hunter and his quarry. The Indian fowler frequently employs a bullock or tame buffalo for stalking purposes. The Arab sometimes assumes the skin of an ostrich as a cover under which he can approach a party of wild ostriches. Similarly, the hunters of Hansen-Land make use of the head of a species of Hornbill as a screen when chasing Antelopes. This fact was reported to me by Mr Ernst Hartert. He saw that method in actual operation. The use of the Stalking-Horse found high favour in Europe when the cross-bow was the ordinary weapon of sportsmen. Tempesti and other early draughtsmen frequently introduce figures of sportsmen employing the Stalking-Horse into their hunting-scenes. Gerouse Markham devotes the eighth chapter of his *Monkeys' Protection* to a dissertation upon the Stalking-Horse. He first recommends that an old horse should be trained to act as a blind to the wildfowler. After reflecting that such a trained horse "is not ever in readiness," our author proceeds to elaborate an account of the "Stalking horse of Canvase stuff." The engine in question consists of pieces of painted canvas, stuffed with straw. A simpler form of the same engine consists of a single canvas

screen painted to resemble the form of an ox or stag. We are instructed that the "Stagge-Pagane" is specially adapted to "low, fenney ground where any such Stagges or Deere doe usually feede; as about *Hatfield Chase* in the North parts, or *Lincolne* in Huntingdonshire and such like, where the Stagge is more familiar with Fowle, and feedeth neerer them then either the Horse or the Ox." The idea of using an artificial bush as a screen of the kind just described is explained at length by Markham in the following terms:—"As for the Shrubbe or Bush, it shall not be so tall as the tree, but much thicker, which you may make either of one entire Bush, or of divers Bushes woven and intangled one within another either with small Withy wendes, Gourd, or Parkthorn, that may not bee discerned, and this shall not bee above the ordinary stature of a man, but thicker than foure or five men, and in the midst of the bottomes shall bee a small stake, driven with an Iron picke in the ende, somewhat longer than the Bush, which being driven into the ground may support & stay up the Bush." French and Italian wildshooters of the seventeenth century generally preferred to bear the stalking-lush upon their person, *i.e.*, they carried portable frames, into which boughs of trees were so inserted as to completely hide the gunner within.

3. BIRDLIME.

The employment of some viscons substance to effect the capture of small birds has been recognised by many authors, from Aristotle and Pliny to recent writers. It is easy to see that this device might occur to anyone who happened to observe an insect or tiny bird, which had accidentally alighted upon a patch of some natural gum or similar substance from which it vainly strove to release itself. Mr C. K. Bickett informs me that the only use of birdlime that he has seen adopted near Fuchow was devised by small boys. They smeared a little birdlime at the end of a slender bamboo, and captured dragon flies and cicadas therewith. He was informed, too, that birdlime was utilised for catching rats in houses. Mr F. W. Styan writes to me from Shanghai that "Cicadas are picked off the trees, sometimes at great heights, by means of a jointed bamboo like a fishing-rod, the tip of which is covered with bird-lime. I have seen cicada-catchers take small birds in the same way. Cicadas by the way are favourite cage pets with the Chinese." Mr R. Wallace

makes the curious observation that birdlime is used for insect catching upon the island of Lankoo. "Every day boys were to be seen walking along the roads and by the hedges and ditches, catching dragon flies with bird-lime. They carry a slender stick, with a few tuags at the end well mounted, so that the least touch captures the insect, whose wings are pulled off before it is consigned to a small basket. The dragon-flies are so abundant at the time of the rice flowering, that thousands are soon caught in this way. The bodies are tried in oil with onions and preserved shrimps or sometimes alone, and are considered a great delicacy" (*The Malay Archipelago* p. 154). But the most general use of any kind of birdlime is for procuring little birds. Mr. Styrac informs me that he has seen a Chinese Fowler capture a number of Siskins upon the outside of a rope on a hill-side in the following manner: "He had a rough pole fifteen feet long, on the top of which was tied a green bird-chimp, to give the appearance of a natural tree. Below this, at intervals, thin rods two feet long, covered with bird-lime, were inserted at right angles. The birds perched fearlessly and found themselves prisoners. On moving his 'pitch,' the man pulled out the rods, placed them carefully in a basket, shouldered his pole, and made off." Mr. Turley contributes a note upon another form of toadling engine used in Northern China: "A long pole is selected the finer extremity of which is bent over and tied in the form of a huge loop to the main stem. The space within the loop is filled in with owl-webs or fine net smeared with a very sticky paste. This method is used to catch small Tits and Wrens in the spring-time. A bird hopping from twig to twig has thus prepared lough thrust quietly near it. It may thus fly through the webs or against the net, and some paste will certainly adhere to its wings, when the poor little creature becomes helpless. Enough has now been said to explain the part which birdlime plays among the various devices resorted to by Eastern fowlers. Many other references to this subject will be found in the body of the work. It may be convenient, however, to take the present opportunity of explaining the origin of some of the adhesive substances which are collectively known as birdlime.

Pliny tells us (*Natural History*, Book xvi. Chap. 94) that birdlime is made of the berries of the mistletoe. These are pounded, soaked in water, beaten with a mallet, and finally reduced to the condition of birdlime. Pliny devotes a chapter to "Del Virgilio," in which he also commends

the use of the berries of mistletoe as a base, with the addition of olive or walnut oil. The birdlime sold by English chemists is based usually upon linseed oil. Old-fashioned fowlers still employ the bark of holly as the base of their birdlime when they can procure it in sufficient quantity. A Carlisle-veteran volunteered to me that his father used to manufacture birdlime for many local customers forty or fifty years ago. The material adopted was holly bark, which was allowed to rot in a hole in the damp floor of his workshop, precisely as Markham describes (*Hengert's Fowling*, p. 208). Olm tells us that foreign birdlime was trafficked in by the Italian fowlers of his day. Mr Orono has sent me a specimen of the plant which furnishes birdlime to the islanders of Zante. This has been identified for me by Mr James Batten of the British Museum, who pronounces the species to be *Onoclea quercifolia*. Curiously enough, this same plant supplies the birdlime used by the Arabs of Algeria. Mr W. H. Watel of Algiers has forwarded half a ball of native birdlime with the following remarks:—"This exudes in quantities about the size of a small pea from the sepals of a variety of thistle. The Arabs collect this, and, by pressing it together, make the ball I send you. This quantity would take about three weeks to get, but they do so while they are watching their sheep. To make the birdlime, as much as is wanted is put (on the scene of operations) in the little 'marmite' (a earthen pipkin) I send you; a little fire is lighted underneath and olive oil added. The mixture is then cooked until the proper stickiness is arrived at. The *alfa fibres* are then passed through the birdlime." Mr Watel adds that the "marmite" is heated by being placed between two stones, the interval between the latter being filled with a bunch of twigs.

The Dean of Cairo has forwarded the following note, furnished by a friend who is intimately acquainted with the devices of the fowlers of modern Egypt:—"The natives always mix the bird-lime with treacle, with the idea of making it more sticky. The Arabic name for it is 'Makhait'—they use it for catching singing birds and 'Beesfikies'. The former they catch by placing a piece of stick covered with bird-lime on the top of cages, in which are birds similar to those they wish to catch. When the wild birds hear the others call, they fly down, and are of course caught; after which they must be immediately taken off, otherwise, in trying to free themselves, they tear the skin off their feet. For the 'Beesfikies' they cover the branches of a tree with bird-lime over night, and in the

morning collect the birds. "Those that are not dead they kill. The said birds are also shot when in great numbers. The singing birds that visit Egypt are Goldfinches, Linnets, and Starlings." Mr Pantagopolo informs me that the fowlers of the Moen prepare their birdlime from the sap or milk of the fig. This is obtained by making incisions in the sides of the tree. The saps are first boiled, and then placed in a reed vessel; it is next stirred backwards and forwards with a stick until ready for use. If it appears to be too thick a few drops of linseed oil are added. Birdlime thus prepared preserves its adhesive character for an indefinite period.

Mr Thomas Aynes reports to me that "In Natal the Zulu boys used to catch many birds with snares, and birdlime was also certainly used by them. This birdlime was made from the sap of a species of wild fig, and so were the limes used for snares, but I do not know whether the two were made from the same species of fig tree. The birdlime was often placed on any conspicuous twigs of any bush, especially among beds of reeds, where often swarms of liches bred or frequented, also on bare branches of bushes in the woods." Dr Percy Rendall has written to me from Port Johnston, Nyassaland, to report the origin of the birdlime used in that part of British Central Africa. "It is obtained from the *Euphorbia* known as the *Chondolobe* *Chotes* (a respectable-sized tree), by making incisions in the bark, catching the milky juice, boiling it, and skimming or catching it on the surface with twigs. The birdlime thus prepared is sufficiently strong to effect the capture of large birds, such, for example, as a Hornbill (*Buceros*).

In Western India as in Natal and Gwera, the juice of the fig forms an ingredient in the birdlime employed by native fowlers. Mr Harold Littlehale sends me the following note from Karachi:—"Birdlime ('*luchehha*') is made here by boiling sweet oil ('*mithra tel*') with a little flour ('*atta*'), and adding the milky juice of the branches of the sacred fig ('*popal*') and the common fig ('*godad*'). The '*luchehha*' is smeared on thin twigs of bamboo, which are laid crosswise on the ground, and have grasshoppers or other insects tied by hairs near them, or stuck with a little of the birdlime, or else the limed twig, lightly adhering to the end of a long thin bamboo, is gently pushed up into a tree in which the unsuspecting victim is perching. Doves, Bulbuls, and Parakeets are often taken by this latter method, and larks also by the former." Reference has already been made (p. 137) to the origin of the bird-

lime employed by the ancient fowlers of Hawaii. I have not received any reports from China as to the character of the birdlime manufactured by the Celestial birdcatchers; neither is information upon this point forthcoming from Borneo or the Malay Peninsula. Professor Ijima has kindly written to explain that the Japanese birdcatchers base their birdlime upon the bark of two indigenous plants. These are *Ilex integrifolia* and *Trochodendron aralioides*. It is also manufactured from wheat. The usual method is to take the fresh bark of either *Ilex* or *Trochodendron* and pound it in a mortar until it has been reduced to a sticky mass. It is then immersed for some hours in water, washed afresh, and well kneaded. "Boiling in or kneading with vegetable oil softens the Mochi, and the process of spreading it on sticks is greatly facilitated."

The use of birdlime extends to the most remote islands of the Pacific. Kuhnly states that fowling with birdlime is well known in the Falew Islands, though practised chiefly by boys. The sap of the Breadfruit tree, which swells when exposed to the air, forms a glutinous substance which is utilized as birdlime. Mr Hadfield informs me that birdlime is used in the Loyalty Isles. It is prepared from the berry of an indigenous plant by a process of slow chewing. The birdlime is smeared upon a bare branch at the summit of some tree which has failed to bear fruit. A bait is provided in the shape of a berry, which is placed at one end of the perch. This bait is partly severed. The result is that when a dove or other bird alights upon the prepared twig it finds itself held a prisoner. It commences to struggle, and thus snaps the perch, which falls to the earth, carrying the bird along with it. The native has then to exercise alacrity in order to prevent the limed bird from fluttering out of reach.

4. SNARES AND TRAPS.

The experience of any observant person might acquaint him with the fact that birds are often captured by the accidental circumstance of long hairs becoming twisted round their feet. The recognition of this mishap would suggest many ways of setting snares. Thus the natives of the Loyalty Islands, having ascertained that certain cocoa-flowers are likely to be visited by birds, prepare to effect their capture. They tie a series of nooses, made of fibre, to the boughs upon which the birds are expected

to alight, in the hope that the snare may detain one or more of their number. This device, variously modified, finds a wide distribution in the Old World.

Another plan resorted to in the islands of Lafao and Uvea, is to take a fruit and remove a portion of the outer outside from one end. The native fowler then selects a suitable tree, taking care to choose one which is easy to climb. Having ascended the tree, he proceeds to secure the fruit which is intended to attract the birds. He first drives a sharp piece of wood or shaver through both the fruit and the bough upon which it is intended to rest. He next arranges a running noose round that portion of the fruit which has been stripped of its rind, taking care that the noose stands up at right angles to the bough. A line is carefully attached to the noose. When the native has returned to *beve pone*, he watches the snare from a little hut which he has built at the base of the tree. He holds in his hand the line attached to the running noose. As soon as he sees a bird alight on the branch and commence to peck at the fruit, he jerks his line and secures the bird. He then fastens the end of the line to his hut, and proceeds to swarm up the tree, in order to appropriate the bird and reset his snare. I am indebted for this information to Mr Henry Hallfield who has seen many birds captured by both of the foregoing devices.

A strong similarity of idea connects the device last named with that described in Chapter xv. as practised by the old teachers of Hawaii and New Zealand. It may not be inappropriate at this juncture to quote a letter received from Mr A. Stuard, addressed to my kind conjurer, Mr W. W. Smith:—

In reply to your letter of November last (1854), seeking information regarding Maori methods of Fowling, in the first place it may be mentioned that the Maoris were originally a branch of the same people as the Maoris in their Hawaiian home, and therefore varying little from them in their habits and modes of life, excepting where isolated by their surroundings. practically, the differences were very slight, although according to their traditions they had been separated for twenty-seven generations without any communication one with the other. In 1851, in Otago, I was shown some of the flax snare (hoop) made for catching Pigs in their drinking and bathing places. From what I have seen of those of the Maoris there is no difference, and if you were to ask some of your Canterbury natives (the older ones), either about "Knapoi" or

"Te muka" (Te mui kaha), they could show you the kind of snare better than any written description of them—you would then see how they were made.

Pigeons, Tuia, and Komako (Mako mako) were caught by a person in concealment at the water holes where the approaches were covered up and a running moose laid on a bar close to the water, on which they lit; the moose being pulled from the place of concealment and drawn in, the bird was strangled and the snare released. Another mode of catching Pigeons and Tuia was to observe their roosting places of an evening, then ascend as it was dark, having noted the boughs on which they roosted, climb the tree and grab the birds. It appears that Pigeons roosted as close as they could to the same limb. Tuia did the same, even getting on one another's backs, something like chickens, so that the whole lot would be secured to the lowest of the climber; then calling out to his mate who had brought dry fern close below and a fire stick extended, he lit the fire to show where the birds were thrown down, the climber twisting their necks or crunching their heads with his teeth to prevent the bird either getting away if not properly killed, or being lost in the darkness, and if so, eaten up by the native rats. Mooris used spears (*Haru*), with neatly fitted bone points barbed along one side, but the Messeris either did not know the use of them or neglected to do so. Ducks were caught in the moulting season, when they were generally very fat. They congregated in great numbers in the smaller lakes, whence they were driven by a fleet of small canoes to a clear side of the lake, where the birds would rush off to escape in the grass, not being shot and killed in large numbers. On the arrival of the Mooris, dogs were used to catch them, but owing to the introduction of dogs, cats, and rats, Ducks no longer abound in such immense numbers as formerly. Eating the moulting Ducks induced diarrhoea, which, nevertheless, did not deter them from eating them. The other mode of catching them was by placing snares across ponds of water at certain times when full, so arranged that to swim from one part of the pond to the other they had to pass through the loops (dependent from lines stretched by and fastened to pigs in the water) which caught the Duck by the neck. A whole flight would be taken in this manner. The *Scrub* birds were taken, in the case of large Albatrosses, on the outlying islets, just before they were ready to fly. The smaller *Seabirds* (*Mutton Birds*) and lesser ones harboured in the port on the mainland, but, through the depredations of cats and pigs, have left chiefly for the islets, where they are undisturbed.

I have quoted the foregoing letter in its entirety, because Mr Strand is an authority of the first rank; but it is his remarks on snaring birds which I desire to emphasise.

The idea of setting a snare which is to be drawn tight by a watching

fowler is chiefly found among the islands of the Pacific. That it is known also in Siberia is evidenced by Mr Popham's observation on the method by which the Red-throated Diver is captured by the Samoyede (p. 481). The fact is, that similar uses suggest themselves to native hunters in regions which are widely separated. Thus the native of India is as keenly alive as the South African to the difficulty which ground birds experience in creeping through the densest jungle. Both the one and the other construct artificial gaps, in which they set running nooses, intended to intercept any game which they may succeed in driving in the desired direction. On the other hand it cannot be denied that the extensive distribution of the hanging and fixed snares used in Northern and Central Europe for taking Thrushes suggests that they may have originated in some common centre, from which their use was carried to great distances. The "Archetti" or Springes of the Italian peasants, described at page 82, are found in modified forms in most parts of Europe. They appear to have become obsolete in England, yet the day-trap, figured at page 6, shows that our British forefathers were acquainted with a pattern of this snare which still survives in countries so far apart as Poland and Northern Africa. Hardly less remarkable is the fact that the Springes of China resemble some of those found in Western Europe. The principle of the "Figure of four" trap is apparently recognised in all parts of the Northern Hemisphere. Almost any kind of Deadfall can be worked for effecting the capture of birds or small mammals. It needs no great exercise of skill to fell a few logs of wood; neither is it difficult to arrange them in the run of a wild animal in such a way that its body must come into contact with the main support, and thus dislodge a crushing weight. Alternatively, a bait is so suspended as to ensure the destruction of the hunted animal. Birds suffer at the hand of the trapper no less than small quadrupeds. It often happens that the same identical means are adapted for different purposes in different countries. Mr Hagerup informs me that in Denmark it is the custom to set box-traps for wild Ducks. We are accustomed to use those or similar engines in England for trapping ground vermin. The country people who live in the valley of the Yangtse Kiang set traps of this description in the banks of their fields to catch vermin. These contrivances are built of long, flat bricks, and are closed, when sprung, by a large stone. Mr F. W. Styan must kindly brought home for me a model of this sort of

trap, which occasionally secures a stray Pheasant. When a bird or mammal enters the trap, its weight falls on a treadle which is concealed inside, and releases a catch which holds open the door of the engine. When the catch is disturbed, the door falls, and exit is cut off. The principle upon which the efficiency of this trap depends, namely, that of a lightly-poised balance, appears in many of the engines which are employed for catching birds. We at home are all familiar with a simple form of trap-pan, which can be purchased at any bird-shop. This trap is variously modified in the East, especially in India. Its chief feature is, that the wild bird alights upon a perch connected with a spring, and thus by its own action closes the open door. The same thought is apparent in the Russian Nightingale trap, described at page 122. In that case, the weight of the bird liberates a net which immediately springs over the Nightingale. The prevailing idea of traps for Warblers is based on the experience that members of the *Sylvia* are so eager to seize a tethered mealworm, that they seldom fail to disturb the balance of a trap.

NETS.

The success of fowling depends, broadly speaking, upon the adroit use of blind-lure, snare, and nets. Probably the two last cause the greatest destruction of bird life, though the injury which they perpetrate is relatively small compared with the havoc wrought by the gun. The latter has outside our scope and has rarely been referred to. But nets are used very widely. An enormous number of gregarious birds are caught by their agency, chiefly for purposes of food, but not exclusively so. Nets may be utilised in such a variety of ways that it would be difficult to epitomise the purposes which they serve. It is not unreasonable to suggest that three leading types of nets predominate. We may therefore put on one side nets intended to capture diving birds, as also those constructed to capture birds at night, spring-nets, nets for taking hawks, and such other engines as have a limited sphere of action. The three main ideas of land-fowling coincide with the use of the Drag-net, the Clap-net, and the Flight-net. In other words, the majority of men have found it most profitable to capture birds by covering them with nets when sleeping or skulking on the ground, by intercepting their flight with the perpendicular Flight-net, which has numerous modifications, or by

inducing them to alight within reach of the horizontal and easily reversed Clap-net.

The use of the Drag-net extends across the whole breadth of the Old World. It is all adapted to a marshy or mountainous region. It is chiefly used on grassy plains and fertile terraces bordering the slopes of low hills. The Chinaman finds satisfaction in the employment of this engine. To his matter-of-fact intelligence the pleasure of genuine sport remains an unsolved enigma. He wonders mildly at the absurdity of the ' Foreign Devils ' who waste their cartridges on shooting Quail. It is simpler to use the Drag-net and pays better. But " John Chinaman " is not alone in his philosophy. I have received detailed descriptions by Highland shepherds of their methods of *netting* grouse wholesale in Perthshire. There are reasons, indeed, for supposing that in former days it was considered perfectly legitimate to capture Munfowl with a net and dog. Cosmo Innes states that, in 1663, Black John Crenne had a lease of the mork land of Pitmarke and the shooting of Corragon, " his service being to be fowler to the Laird, and to go to the holls with a sufficient lying dog and bowling-nets, and to kill wild-fowl and moon-fowls of all kinds, and to train up a fouling dog for the use of the Laird." (*Sketches of Early Scotch History*, p. 385).

The Clap-net can boast of great antiquity. It has been introduced into Australia and South Africa in our own day. Its history has been recognised in the United States for a much longer period. The Clap-net is more extensively used in Italy than in any other part of Western Europe, but chiefly as a means of capturing *Passeræ*. It is employed likewise for netting *Laniæ* and other birds that frequent the marshes of the coast. We must cross the whole of Asia to Japan before we can find a race of native fowlers who utilise the Clap-net with the versatility of the Italians. It is possible that the Muso-net which is virtually identical with the Clap-net was originally introduced into the islands of the Japanese Empire from China. But whether introduced or indigenous the Muso-net has long occupied an important place among the fowling implements of Japan. Professor Ijima has sent me five different *skins* of this engine. These are intended for the capture of Pheasants, Doves, Sparrows, Herons, and such small birds as the Chinese Greenfinch (*Paropelia sinensis*). The Muso-net is in equal request for procuring Wild Ducks and Geese. Muso-nets vary in the colour of the twine employed, and in the size of

mesh. They are all of the same shape, and are worked in a similar way (see illustration on page 711). Perhaps the relative dimensions of the Muso-net will be best understood if I mention that the Muso-net used for catching birds measures about seventeen feet in total length. The bamboo staves, between which this net is extended, measure two and a quarter inches in circumference and three feet nine inches in length. The net is three times as deep as the staves, to allow plenty of "boom." The light and simple character of the Muso-net enables the Japanese fowler to carry his tools for long distances without fatigue. A single fowler often works a pair of the Muso-nets after the fashion of our English birdcatcher. In this case the two pull-ropes are tied together by a single hand-rope at some distance from the nets. "The efficiency," writes Professor Ijima "is certainly greatly enhanced by thus tying two at once." Peregrine-fowls are indispensable to the successful working of the Muso-net. The smaller species are also induced to flock to the spot by strewing seed within the field of the net.

Before taking leave of the Clip-net, I ought to remark that although it is almost always extended horizontally on the ground, there appear to be at least two exceptions to the rule. The first of these concerns the nets used for capturing Flamingoes in Egypt. Mr Hartung describes and figures the Flamingo-nets as placed for use in a perpendicular position, from which they are suddenly hauled over like the ordinary Clip-net. We should have expected that these nets would be laid horizontally upon the water: but their great size might render it difficult to reverse these engines with adequate speed, unless tension-beams or springs were supplied. As a parallel to this perpendicular position of the Flamingo-net, it is only necessary to refer to the Alaska Goose-net described at page 219. Mr Turner expressly states that the native fowler places his whalebone-net "edgewise on the margin of a pond." I understand this to mean that the net is set in a perpendicular position. The use of a perpendicular Flight-net, stretched between upright poles, is almost as general as that of the Clip-net. The former engine is principally in vogue for two purposes. The net either arrests the flight of water-fowl during their nocturnal movements, or it entangles little birds which have been driven to seek safety by crossing openings between bushes. The Japanese vie with the Italians in the ingenuity with which they use Flight-nets. The fowlers of both nationalities have devised a variety of ways in which Flight-nets

can be manipulated. The Japanese generally stretch the Kusumi-net between bamboo supports. Professor Ijima has sent me five different sizes of Kusumi-nets. The first of these is intended to capture Sparrows and other small birds. The next is meant to take Thrushes (principally, the Dusky Ouzel) and Snipe of different species. A third is adapted for netting Quail. The fourth and fifth are suitable for catching Teal and Mallards or other large Ducks. The Flight-net is employed in most parts of Europe, and is common in Siberia. It is well known in British India and China. I have traced its use to the Pacific coast of North America (p. 219).

Let me say, in conclusion, that my attention was first drawn to this subject by the excellent account of Cliff-fowling furnished by Bishop Stanley in his familiar *History of Birds*, a work which I have not seen for twenty years, but which was carefully treasured in my boyhood. It was this which induced me to read a paper on 'Fowling' before the Oxfordshire Natural History Society in 1882. The late Professor Westwood, then president of the Society, advised me to follow up the subject, and the present volume is the result. It may be of interest, therefore, to record that my correspondent Mr J. C. Rixon visited the Farnes last summer, and found that the hardy islanders are still devoted to the pursuit of the various species of Sea-fowl which find a home upon their native precipices. "I saw a good deal of the fowling in Farnes," writes Mr Rixon, "and went down one cliff myself on a line, but only succeeded in getting one young Manx Shearwater on that occasion. A good deal of the Fowling is done with an instrument called a Fleia, something like a big landing-net. One man is let down the cliffs to a place much frequented by Puffins and Gullenots. He catches the birds as they fly past with the Fleia. He then wrings their necks and throws them down, when they are picked up from the sea by another man in a boat."

SYSTEMATIC LIST.

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<i>Nucifraga caryocatactes</i> , Nutcracker,	5
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CHAPTER L—RAVENS AND JAYS.

THE RAVEN (*Corvus corax*) is generally accredited with a large endowment of mother wit. Its warning croak is usually uttered long before an expectant fowler has approached within several hundred yards of its nesting haunt. But even the bird of darkness is sometimes worsted by the craft of its human enemies. The modern Greenlander destroys the Raven with a shot-gun. His ancestors were content to kill the Raven by simpler means. Their most common device was to snare the bird with a running snare. A hole was dug in the snow and filled with carrion. A running snare, made of sealskin or of whalebone, was then spread around the orifice. The hungry bird naturally endeavored to secure the bait, and became entangled in the snare. Another plan was for the fowler to make a hole in the snow large enough to contain himself. He then crouched down in the cavity, concealed from the Raven's keen vision by a light covering of snow. The carrion intended

to attract the bird was also placed on the crust of the snow. The Raven descended into the pit to feed when he found himself taken by the hands of the concealed fowler. Bailly tells us that the Raven is sometimes tamed in Savoy, but this only happens during severe weather. The Swiss method is to attach some strong snares ("gros lares") to a lump of meat which is then exposed in the haunts of these birds. I once knew a Canadian Raven to lose his liberty by entering a "Deadfall." The trap had been set by a fell-side farmer in the hope of securing a fox.

In civilised Europe, the plan of capturing Rooks (*Corvus frugilegus*) or Carrion Crows (*Corvus corax*) by means of paper cones, smeared with birdlime, was held to be an excellent amusement for ladies and gentlemen to engage in when they met together. Bergantini tells us, in a footnote to the "L'Uccellatura a vischio" of Bagnasco, that this plan of Crow-catching was practised at Friuli at Bergamo, and in some other places. He mentions in particular that "Il Patrio Veneto" signor marchese Sebastiano Marcello" adopted it as a mode of entertaining his guests. A large number of gallants and ladies ("molti Cavalieri e Dame") met together at the villa of their host at Campalto in the middle of October. A carcass had been exposed in the open air for a few days, prior to their arrival, in order to attract a large number of carrion-loving birds. The Crows and perhaps Ravens flocked to the welcome sight from the country round. ("In pochi giorni già vi convennero da lontanissime parti indium di Corvi e Coracchie.") The evening before the fowling was to commence, a number of paper cones were baited with small pieces of meat and coated inside with birdlime. The guests rose at daylight to see the birds return to the carcass. The greedy Crows readily inserted their heads into the sticky traps. Finding their sight blinded by their unwelcome head-gear, they soared up into the sky until the eye could no longer follow them. The poor things dropped, however, on the ground in the very space from which they had started upon their lofty flight. It was not the sort of fowling that we should tolerate, but the Italians evidently thought it capital fun.

The Rook (*Corvus frugilegus*) seems to have established an evil reputation in Italy. Crescenzio tells how these birds should be captured by means of limed twigs placed on the upper branches of a tree. The birds are attracted to the vicinity by the exhibition of a tame Eagle Owl,

or some other species of Owl. They naturally alight in the tree beneath which the object of their detestation is secured, and thus forfeit their liberty. De Valli gives a characteristic engraving of this kind of sport. Savi observes that the usual plan of destroying Rooks is to fix a live decoy of their own kind on the top of some tree which happens to be situated in the line of flight adopted by these birds. The gunner waits in a small hut made of the boughs of trees. When the wild Rooks settle within gunshot, he takes them clustering masses. The Rook is only a winter visitor to the north of Italy, but Savi considered that this bird inflicted great injury upon the agriculturist. It not only detours a great deal of newly sown corn, but strips the olive-trees of their valuable fruit. At the present time there seems to be a feeling in England that the damage which the Rook accomplishes is counterbalanced by the quantity of noxious insects which it devours in the summer time. In former days, a less compromising attitude was adopted by our legislators. In Scotland, an Act was passed as early as the year 1457, ordering the extermination of "Ruk," of "Crawys," and other "beastys of reif." It was not until 1533 that the English Parliament resorted to legislation to check the excessive numbers of these birds. The engine prescribed to be kept in use by every parish was the ordinary Day-net or Clap-net, then in use for catching a variety of birds. The Jackdaw (*Corvus monedula*) and the Carrion Crow (*Corvus corone*) were outlawed as well as the Rook, the Daw being described by the title of "Chough." This is a very ancient English name for the Jackdaw. In our time the name has come to be applied almost exclusively in common parlance to the Cornish Chough (*Pyrrhuloxia griseolata*). But Turner, who had studied the English names of birds, expressly distinguishes the latter species as "A Cornish Chough." Gesner, too, distinctly says that the "Monedula" or Jackdaw was known in England as the "Cedde, Chough, or Ka." Others dubbed the Jackdaw as "Dawe, Choughie, Cedesse." I cannot discover any trustworthy evidence that the "*Corvus Cornubiæ*" was recognized by Shakespeare or any other Elizabethan writer as the Chough of the vernacular speech. Such evidence as is at present available satisfies me that the Jackdaw was the bird proscribed by the English Parliament. At all events the fate of the birds was sealed at Westminster. The inhabitants of every parish were left to carry out the doom pronounced against the whole race of "Crows," under penalty. A fine of ten shillings was to be exacted

from all recusant parishes, until the requirements of the Act were carried out. A later statute of Elizabeth, passed in 1566, entitled 'An Act for the Preservation of Grain,' revived the crusade against the Curvids, by authorising the churchwardens to pay head-money for the destruction of such birds. I have not discovered any old entries of moneys expended for the cost or repair of Crow-nets, but have given elsewhere many particulars of the pains once taken to kill Ravens in the Lake district. In working through the parish books of the large and mountainous parish of Garsdale, I ascertained that a total score of 966 Ravens were accounted for by the wardens during a period of ninety years: from Midsummer 1752 to Midsummer 1842. It would seem that most of the birds thus accounted for had been taken from their nests by the adventurous youths of the district (*cf. A Farm at Lashford*, p. 154 *et seq.*). But Mr J. K. Harting has succeeded in showing that the Crow-net was supplied in *some* parishes according to statute. He states that the Churchwarden's Accounts of South Colbury, Somerset, contain the following items:—

1592 Imprimis a Rooks nett	ja.
1625 Imprimis a Rooks nett	"
1627 For mending the Rook nett	ja. vjd."

(*Zool. MSS.*, p. 43.)

Markham tells us that the great net, commonly called the Crow-net, differed nothing from the Plover-net, unless the owner chose to have a larger net for Crow-catching. That the bird for whose capture the net was chiefly used was the Rook is evidenced by the instructions which Markham supplies us to laying the net: "before or nere unto Barne doores where Corne is a thrashing, or in any such places where Corne hath bene winnowed and the chaff remaining, with which you shall ever observe to cover and hude the Net assoone as it is laid, so as it may not be seen, and then assoone as the flocks of birds come, and are scrapping amongst the chaffe, you lying abed off couceabl, with the cord in your hand, shall sodenly draw it and overturne the net upon the birds, by which at one pull you may take may (*sic*) Crows, juppons, Kites, Buzzards, and such like ravenous binden." As an alternative, the Crow-net might be set "in any stubble field upon the Corn lands, provided the stubble cover the Net so as it be not perceived" (*Musger's Prevention*, p. 91).

It is curious to observe that the exceptional methods adopted to

protect the interests of the British farmer in the sixteenth century attracted the notice of our Continental neighbours. Gremer, writing about 1555, notices that hawks were so abundant in Britain that it had been decided to offer rewards for their destruction, on account of the havoc which they wrought upon the corn fields. The Nutcracker (*Nucifraga cygnestris*) too seldom strays to the shores of Great Britain to be captured by any insular device. Among the solitudes of its native pine woods, in the mountainous parts of Northern and Central Europe, the "Cassenoix" occasionally falls a victim to imprudence, and is taken in a snare. Radly states that large shoals of Nutcrackers sometimes arrive in Savoy, and that the birds are so exhausted that they cannot take good care of themselves. They are therefore easily taken in the snare ("Pége") which is commonly set for Thrushes (*Merle*). Glonsen states that in Norway the Nutcracker must be included among the various species of birds which are casually snared in the "Domenie" intended for Fieldfares and other species of Thrushes. "Several Nutcrackers," he writes "are generally caught every year, either when feasting on the succore berries, or when wanting to take a bird already noosed. In the latter case, the Nutcracker is found hanging together with the Thrush, a comrade in misery, being snared by the second noose." (*Pjysica I Norge*, p. 202). It happens at rare intervals that an old bird of this species is taken almost by accident, in one or other of the "Bocados" which are kept up for catching Thrushes in the passes of the Italian Alps. In 1868 two examples of the "Nocciolaja" or Nutcracker were netted in a "Bocado" at Brianza, in the province of Como (*Aufmanns Reisen*, Vol. IV, p. 442). The Magpie (*Pica pica*) is too crafty to be easily taken in the nets of the fowler. Nevertheless, it has often been outwitted by the wiles exercised for its destruction. "If you take a quick and lively Magpie, and lay her on the ground upon her back in such sort that her wings be fastened to the earth, the stir and noise she will make will call many other Magpies about her, which fighting upon her (as it were to succour or relieve her) she will hold the first that comes fast with her claws till you may come and take her. This you may put down by the other in like manner, and so you may do until you have taken a great number of these birds. The best time for this is when they pair" (*A Country's Note Book*, p. 21). The device just mentioned has been described by many writers, from the fourteenth century downwards. Some of their

number advise that it should be adopted as a means of securing other birds of the same family—the Jay (*Corvus glandarius*), for example. But we must not forget that Leonard Mascall tells us of “A poetic way to take a Pye” — Ye shall lime a small threede, a foote long or more, and then tie one end about a peece of flesh so bigge as shal may flye away withall — and at the other end of the threed, tie a shot buckle, and lay the



The Jay Trap (after Mascall).

the snare employed in Poland to catch Fieldfares. The English trap was, however, more substantial than the Polish trap, being made "with a poale of seven or eight inches about and seven or eight foote long or hie, set fast in the ground, about your wheate or other fraite. There is made in the same poale two holes, one beneath and the other above: in the uppermost hole there is a spring wand let fast there and bowed into the hole above, which hole ye shall put threede a string, fast to the end of the spring wand, with a knot thereon to stay it that it shall not slippe backe againe. Also on the fore side of the hole ye must put a blunt pinnce of wood with a round ende of seven or eight inches long set loosely in by the knot to stay the string, which pinnce ye shall see cleven in the middle, and in that cleft they use to put a cherie or wheate for a baite. Then shall yee spread finely, and lay the string aboute on the same shorfe

flesh on a post, and let the threede hung downe, and when she flies away with it, the threede with the buckle will wrappe round her, and then she will fall, so ye may take them (*A Booke of Fishing*, reprint, p. 49). We are likewise indebted to Mascall for a description of "the Jay trappe to set about corne fields or orchards." It bears a close resemblance to

pinne, and your string to have a running noose. Also the traps of your stake must be sharp that no hawk may light thereon. And when any lights on the short pinne to catch the hawk, it falls down, and the string thereon takes them by the legges. Thus ye may set many such about your grounds. Ye may make these trappes on boughs in trees to take them at all times of the year if ye list." Professor Newton reports of the Siberian Jay (*Perisoreus infundatus*) as observed in Lapland, that there is no difficulty in snaring as many live specimens as can be desired. Schrenck reports that the natives of Eastern Siberia very commonly keep tame Jays in their huts. He adds that these birds are often captured in the snares set for Sables, which are baited with fish. A German device of catching jays and many other birds is to employ a tame Owl to attract the birds to a feeding-tree, which has been lopped of many of its branches, and carefully trimmed (as shown in the headpiece of this chapter). Numerous lined twigs are set upon the pruned branches, which remain so arranged as to offer convenient perches for any jays that may be lured to the spot. The tree generally selected for this purpose is a pine tree a tree that stands in an open space a few yards from its fellows. The fowler often lops off the smaller branches from the surrounding trees, so as to make a circle of bare boughs, to which he secures his lined twigs ("Leimruthen"). Under the central tree he builds a hut of the branches which have been cut off the trees, to form the "Hecherhutte." This cabin is built of the necessary size to contain the fowler and his companions. A live Owl, or, in default of such a decoy, the skin of a Hare (*Lepus lagotis*) is placed on the top of the "Hecherhutte," or Jay-hut. The fowler commences operations at dawn and the sport lasts until nine or ten in the forenoon. The number of lined twigs employed varies from 80 to 100. The birdcatcher calls the wild birds together by means of a hand-whistle ("Wichtelpeise"). This is made with a piece of cherry bark. The fowler imitates the cry of an Owl. When the jays recognise the challenge of what they suppose to be their hereditary enemy the Owl, they begin to scold and thus excite the neighbourhood. Many other woodland birds assemble to unite in blaming the Owl. The Jays are prominent in their protests, and soon fly into the tree, beneath which their object of their opprobrium is tethered. As soon as the jays come into contact with the lined twigs, they become incapacitated for flight, and tumble helpless to the ground.

The Italians are adepts at capturing the Jay, as well as a variety of other birds, by the system just described. It is called the "Chiorcola," "Fistorella," or "Farschetta" in Italy. This system owes its name of "Chiorcola" to the whistle which is employed to attract the birds to the fowler. This, says Savi, is the same whistle which the fowler uses to imitate the chuckle of the Blackbird. It is a metal bird-call of small size. The Tuscan birdcatcher selects the scene of his foraging operations in the centre of some copse, at a moderate distance from a few large trees. Having decided upon the spot, he sets to work to build his hut ("Capannello"). This is supported by two or three tall saplings eight or nine feet in height. The fowler cuts other branches in the vicinity and uses them to make a tiny wickered hut of green leaves, just large enough to conceal his person from the sharp eyes of the Jays, and other birds which he hopes to capture. He then removes the underwood and small branches for some little distance around the hut. The larger branches indeed are left, but only to be bent into the shape that best answers the requirements of the fowler. These branches are garnished with lured twigs. The fowler makes it his business to see that no bough or perch ("Poggio") is left without its lured twig. The Italian fowler begins to whistle with the "Chiorcola," either when the birds are leaving the woods to go and feed in the fields and orchards in the early morning, or when they are returning in the evening. All the birds in the vicinity mistake the prolonged and monotonous whistle for the call of an Owl. Twitting and chattering, they all draw near to the spot from which the unwelcome sound proceeds. Even those that are too distant to hear the call of the birdcatcher recognise the shrieking of their fellows. They hasten to join in mobbing the imaginary intruder. The Jays, Blackbirds, Long-tailed Tits, and Chaffinches are usually the first to arrive and to spread the alarm through the wood, all agitated and curious, keeping their tails and wings in perpetual motion. As the Jays see nothing of their enemy, they draw closer and closer to the fowler's hut, until at last they alight on the lured twigs. These being lightly poised, readily drop to the ground, carrying the fluttering birds along with them. The cries of the victims only serve to whet the curiosity of the birds that are still free. Far from taking warning by the fate of their brethren, they hurry to the same miserable fate. Selivanowski describes the method of taking Jays and other forest birds in Russia

as being similar to the methods adopted in other parts of Continental Europe.

The Russian system seems to approximate most closely to the French "Pipée." The fowler is advised to choose a single tree for the purpose of fowling. It must not be so tall as to be exposed to the wind. In Russia the oak is considered the most suitable tree, because its branches are disposed symmetrically. This fact facilitates the task of the bird-catcher in setting his lured twigs. The ends of the uppermost branches must be lopped off. Were they retained, bands of prey would probably perch upon them and thus frighten the smaller birds away. If the tree selected proves difficult to climb, another tree may be cut down and moored to the first, instead of a ladder. When the fowler trims the superfluous branches from the decay tree, he is advised to cut slits in the remaining branches to receive the lured twigs. The Russian birdcatcher prepares his hut of green boughs or, if necessary, of fir branches, chel out with bushwood. The Russian fowler climbs up into the decay tree, bearing as large a bundle of lured twigs as he is able to carry. These are inserted into the clefts which have been left for that purpose in the branches. Other and longer twigs covered with birdlime are fixed as hoops in the ground around the fatal tree. When all the needful details have been attended to, the birdcatcher takes a live Owl and fetters it by a string to the top of the fowling hut. In default of a live decay, the aid of a stuffed specimen is called in. The fowler then hides in his hut and begins to challenge the wild Jays and other birds by calling with a hind-whistle. The French "Pipée" hardly differs from the devices just described, except perhaps in the care which is taken to prepare an elaborate series of paths around the fowling hut. This sport derived its name from the "Pipée," or bird-call employed by the French fowler.

The "Solitaire Laurentin" suggests two forms of bird-call, for the use of the "Pipée." Of these the first, and no doubt the most primitive, is to hold a piece of a species of couch-grass in the right hand, between the forefinger and thumb, and then to insert the edges of the leaf between the lips of the fowler. The operator gently presses the lips together, and blows softly, thus imitating the cry of an Owl. But the birdcatcher needs to arouse the anger of the wild birds by simulating the cries of birds that appear to be denouncing the presence of the Owl. He requires for that purpose the "Appareil à fumer," of which the simplest pattern

consists of an ivy leaf. The couch-grass, according to Bohard, requires to be prepared by being steeped in vinegar. The ivy leaf is used without any such treatment.

The "Solitaire Inventif" advises the birdcatcher to take an ivy leaf and pierce a hole as large as a pea in the centre of the leaf. The leaf is then rolled into the form of a tiny, spiral cone, the small end of which is placed as a bird-whistle in the mouth of the fowler. When the fowler blows through this little instrument, he imitates the cries of a party of Jays which are mobbing an Owl. Both Bohard and the "Solitaire Inventif" dwell on the desimilarity of the "Appaux à frouer," to supplement the cry of the Owl imitated with the "Chienlent" or couch-grass. Various ingenious bird-calls have been invented by the wit of the French birdcatchers to serve as 'Pipées' and "Appaux à frouer," but these have only been grafted upon the original plan of utilising common plants as bird-calls. As for the exercise of the "Pipée" the "Solitaire Inventif" regarded it as only to be used when the birds were eating the grapes in the vineyards. Bohard distinguishes three sorts of "Pipées": "*les pipées palmaturées, les pipées de saison, et les pipées tardives.*" The first of these was practised when the wild cherry ("Merises") ripened, many birds were then rearing their latest broods, and their flesh was of poor quality. The "*pipées de saison*" were those recognised by the "Solitaire Inventif" in the season of grapes. This was the best time to catch Thrushes and Redbreasts, which were then in prime condition. The "*pipées tardives*" took place in the month of November, when many Jays were taken, but very few Redbreasts. The "Pipée" ceased to be effective when frosty weather set in.

Bohard and the "Solitaire Inventif" agree in the instructions which they gave as to preparing a tree for the "Pipée" by trimming off the superfluous branches, and setting lured twigs in the necessary positions. Both authorities recommend that the fowling hut should be built of branches, and placed at the base of the tree which is chosen as the centre of the "Pipée." The "Solitaire Inventif" declares that the fowler must make five or six open spaces ("Chenères") at certain distances around the hut. These are set apart to receive certain supplementary branches which are covered with birdlime. Bohard extends the same idea. He arranges that the fowling hut should be encircled by three avenues, which again are crossed by five or more transverse paths. The

first and broadest of the circular avenues (A) measures six or seven feet in depth, and surrounds the hut; the second (B) is only three feet across; while the third (C) measures four feet or more across. The fowler cuts a number of perches ("Pians"), which he arranges in the avenues about the hut. These rods vary in size, but all serve the same purpose, viz., that of carrying lined twigs. The "Solitaire Inventiv" assures us that the first bird to arrive at the fowling-tree is the "Roitelet" or Wren, followed by the Redbreast, and then by the Titmice. After the Tits come the Chaf-finches, and then the Jays, which are bold in their endeavour to mob the supposed Owl.



Plan of "Piedr."

The French adopt the cruel expedient of breaking the wing of the first Jay taken. Its cries serve to whet the curiosity of its free brethren and thus facilitate their capture. The diversion of the "Pipe" commences at daybreak, and lasts until eight in the forenoon.

The numerous species of Birds of Paradise (*Paradisæa*) supplied as ornaments to the European markets inhabit such remote regions that very few Englishmen have hitherto been conversant with the habits of the birds, or the means by which their capture is usually effected. It is the fact that Birds of Paradise are shot with blunt arrows in the Aru Islands, and also, according to Mr. R. Wallace, in some parts of New Guinea; but it is equally certain that these beautiful birds are often obtained by the

medium of snares. When Mr. Wallace visited the island of Waigou in 1860, he made arrangements with the native birdcatchers to amply supply him with fresh-killed Birds of Paradise. A number of specimens were brought to him, and he discovered that the Red Bird of Paradise (*Paradisea ruber*) is obtained by a snare similar to that with which the Mori fowler is so conversant. "A large climbing Atom bears a red reticulated fruit, of which the birds are very fond. The hunters fasten this fruit on a stout forked stick, and provide themselves with a fine, but strong, cord. They then seek out some tree in the forest on which these birds are accustomed to perch, and, climbing up it, fasten the stick to a branch, and arrange the cord in a noose so ingeniously that when the bird comes to eat the fruit its legs are caught, and by pulling the end of the cord, which hangs down to the ground, it comes free from the branch and brings down the bird. Sometimes when food is abundant elsewhere the hunter sits from morning till night under his tree with the cord in his hand, and even for two or three whole days in succession, without getting a bite, while, on the other hand if very lucky, he may get two or three birds in a day."

The device just described was only known to eight or ten men in Waigou when Wallace explored that island (*The Malay Archipelago*, p. 534). A widely different plan of capturing Birds of Paradise is followed in the south-east promontory of British New Guinea. Mr. J. P. Thompson reports that the Birds of Paradise usually congregate upon a favourite tree, called in sporting parlance "the dancing tree," to exhibit their gorgeous plumage by numerous elegant motions towards one another. "The mountain natives make use of a very clever device for catching these beautiful birds by trapping. The most favourable place in the jungle is selected, and a clearing made, about thirty feet wide at one end, and gradually converging to a point like the letter V, where it terminates in a framework constructed of saplings crossing one another at intervals, and supported by their ends to two suitable trees. This structure is then perfected by attaching numbers of snares thereto, so placed as to trap the unwary birds in their flight through the tempting opening in the jungle" (*Ibis*, 1893, p. 274).

[The engraving of the German "Lay hut," which forms the headpiece of this chapter, has been reproduced from *Arten von Vögeln*.]



CHAPTER II.—STARLINGS AND ORIOLES.

WHEN I visited Thessalon some years ago, I was much delighted to observe the boxes which many of the townsmen had nailed up against the sides of their wooden houses. These were intended to afford nesting accommodation for the common Starling (*Sturnus vulgaris*). Olini figures a vessel called the "Finnischi," used in Italy for a similar purpose. "To catch these Starlings," he says, "which are accustomed to nest in roofs and buildings, it is usual to place against the wall of the place where they breed a vessel of unvarnished terra-cotta, made to resemble the wine bottles which the country folk use, having one side flat and the

other spherical. A space is left open in the flat side of the vessel, sufficiently large to admit of the insertion of a hand. When the 'Framingh' is placed in position, the spherical side faces, of course, outermost. When the Starlings or Sparrows which occupied the vessel have reared their progeny to a good size, the fowler takes down the vessel and extracts the young birds. This recalls the remark of Willughby that '*Stores* are not eaten in *England* by reason of the bitterness of their flesh: The *Indians* and other outlandish people are not so squeamish, but they eat away with them and make a dish of them for all that.' It would be a mistake to affirm that Englishmen always rejected the flesh of this bird. It is included in the list of birds supplied to the table of Lord William Howard, as the following extract witnesses: "May 18.25. 1621—A pig, a capon, and young starlings, ijs. apd." But Willughby was no doubt correct in believing that the majority of Englishmen rejected the flesh of the Starling. Its inferior quality and bitter taste are often mentioned by the Continental writers. Roland remarks that the "*Roussinon*" has a delicate flavour in autumn, as we should expect from the fact that the Starling feeds on cherries and other fruit when in season. But the Frenchman adds that the precaution of pulling out the tongue of the fresh-caught bird must be observed, or the flesh will prove tough. An alternative plan of preparing the bird for table use is to bleed it at the back of the neck. Medieval and even later writers repeat again and again that Starlings can be captured by the cruel expedient of attaching a lined string to a live Starling, which is then released and allowed to rejoin the ranks of his wild brethren, as depicted in the headpiece of this chapter. Everyone knows the varied and beautiful evolutions which a party of Starlings will perform while engaged in aerial exercise. It is obvious that the lined cord which trails behind the liberated bird must in a few moments adhere to many of the unsuspecting crowd, which flutter downwards in confusion towards the ground. The fowler is prepared for such a contingency. Armed with a strong bush, he beats his victims to the earth with remorseless cruelty. But this thoughtless plan of catching the luckless *Stores* appears to have long fallen into disuse. It is mentioned in *A Cavalier's Note Book*, with the remark that its efficacy had been proved: "This experiment has been tried successfully by Mr Thomas Stanton," i.e., prior to the year 1660.

Undoubtedly, the favourite plan for catching Starlings, alike in

England, France, and Italy, has been to stretch flap-nets in the open fields. In Valli ignores this engine as thus employed. Savi alludes to the continuance of the practice in our own time, adding that, though disused in many places, yet at Pisa the "storno" or "stornello" found some favour, whole sacks full of these birds being supplied to the local poulterers. It is curious that the Tuscan peasants have hit upon identically the same dodge as the Japanese for disarming the suspicions of the birds they wish to net. The fowler, says Savi, will be able to entice the birds all the more easily if he places a tame Rook in the centre of the nets. The Starlings, knowing the cunning nature of that bird, will not apprehend danger where they observe the Rook resting in quiescence. The Japanese employ a tame Curlew (now *Curlew corom*) in a similar way to disarm the fears of the sparrows, when trying to take them with the "Muso-net." My experience in the north of Italy and also in the vicinity of Florence was, that the birdcatchers caught Starlings of all ages in their nets, provided that cages of live "Stakes" were used to deceive the free birds within reach of the toils. Other measures are resorted to in Germany. One elementary plan of the German fowler was to clear a space in the snow, which was baited with worms. Lined twigs were placed in suitable positions for detaining the birds when they came to the open spot. Some fowlers used to bait wicker baskets (*Fischhausen*) with a few cherries, and then place the basket traps in the beds of reeds frequented by Starlings. Gesner mentions that in his day there was a birdcatcher living near a monastery in the vicinity of Zurich who practised the device just mentioned. His custom was to place eider baskets ("Nassas Vinivinas") among the reed-beds in which numerous Starlings passed the night. The cherries proved such an insidious bait that the fowler had been known to capture a hundred birds, old and young, in the operation of a single night. But the most destructive engine for capturing Starlings is the net used in the variety of fowling known as "Starnenfange im Schilt." An immense net, from 80 to 100 feet in length and 60 or 70 feet deep, is suspended outside one of the reed-beds to which multitudes of Starlings are observed to retire in the evening. The net is stretched between lofty poles and is worked with lines and pulleys. All the preliminaries having been arranged, the fowlers visit the spot after dusk, and proceed to drive the sleeping birds into the meshes of the net. The possibility of the birds escaping from the toils of the fowlers is not

great, for high side-nets ("Seitenwanden") are placed at right angles to the main wall of netting. Mr. Blauw informs me that a similar method of taking these birds is still extant in Holland. "Starlings," he writes, "are caught during the night at their roosting-places in the reeds in large ponds. A large net is fastened on poles, and a light is placed at some distance behind it. The starlings are then disturbed in their sleep by other people. They fly in great numbers towards the place where they see the light and, in doing this, fly into the net and are caught, the net being let down over them, so that they get drowned. It might be thought that, when the innumerable phalaropes of Starlings exchange their summer and autumn quarters in temperate Europe for the swamps and oases of Northern Africa, they would leave the devices of fowlers behind them, and winter in a land of sunshine undisturbed by fear of crafty bird-catchers. Fate has decreed otherwise. Mr. Fernan reports to me that the Moors are no less successful in netting Starlings than the fowlers of Holland or Germany. 'Starlings,' says Mr. Fernan, 'are sometimes caught in the following way: I have done it myself, but only during very dark nights. Each birdcatcher is furnished with a bag which he slings round his neck. There should be eight or ten birdcatchers and about half-a-dozen drivers. All go to some reedy marsh frequented at night by Starlings, the roosting place is marked, and when quite dark the 'catchers' place themselves in line about a hundred yards in front of the birds, which are then gradually driven toward them. The birds end by perching around and on the 'catchers' heads, arms, shoulders, &c., and are caught by the hand and put into the bag in great quantities. If there is any light, the birds perch just out of reach."

Canon Tristram observes that millions of common Starlings visit the date forests of The Sahara in winter, and do incalculable damage to the ripe fruit. They are snared and destroyed by thousands being paid for food. The common species is occasionally accompanied by a few individuals of the Black Starling (*Sturnus sarnensis*). It is by means of snares that the natives of India effect the capture of the beautiful Starling which is generally called the Rose-coloured Pastor (*Pastor roseus*). Mr. Lushdale informs me that the arrangement of snares tied to a light bamboo frame, described in Chapter XXI. as a means of catching the Shikra, is also in request for taking the Rose-coloured Pastor. When the Shikra-trap is employed for the purpose of taking any insectivorous bird, it is baited

with grasshoppers. The latter are either stuck on lumps of mud or tethered by hairs. Mr Littledale wanted on one occasion to try to induce the Rose-coloured Pastor to breed in confinement. He therefore set to work to procure some living examples of that species. With this view he set a Shikra-trap near the drinking place of these birds. The experiment was attended with signal success. Mr Littledale caught no fewer than eighteen Rose Pastors in the course of a single evening. The opportunities afforded to European landladies for capturing the Rose-coloured Pastor appear to be few and far between. The Province of Verona was visited by vast numbers of this species in the year 1875. Many of the birds settled down to breed in the neighbourhood of Villafrauca. Signore De Betta, the historian of this avian invasion, records that great numbers of the male birds were taken alive in Chap-nets, locally called "Chausini." Abbravantes informs us that the Italian fowlers of his day were well acquainted with the Rose Pastor, which they called the "Sturnus Marinum," a title suggested, perhaps, by the eastern origin of the species. It was, however, used as food at Bologna, and considered good eating.

The Rose Pastor shares the Common Starling's partiality for orchard fruit, a failing which not unfrequently costs the bird its life. Thompson records the capture of a Rose Pastor by the simple device of baiting a fish-hook with a cherry. This occurred in Co. Tipperary. Another Irish specimen was taken in a net spread over a cherry tree. But the great majority of the Rose-coloured Starlings that have visited our islands were speedily slaughtered with the gun, a fate that is also meted out to the Golden Oriole (*Oriolus galbula*). In Italy, the Golden Oriole is most sought after in autumn, because it then feeds largely on fruit, and is considered to possess an exquisite flavour. Its destruction is generally accomplished by some peasant, who waits in ambush among the fig trees and allures the poor "Rigolo" within gunshot by imitating its call-note. A few individuals of this species are captured in the "Barradas" in the north of Italy. Gesner and Abbravantes refer to this species being captured at night by means of the fowling lantern. The "Chiausini" is instrumental in capturing the Golden Oriole; so is the Chap-net, when laid beside a stream in dry weather. The Germans catch the "Pinel" or "Goldhansel" with a decoy tree, like the Jay (*Ardea non Rigolo*, p. 510), or set lined twigs around the nest. They also employ gins ("Sprenkeln")

lured with cherries (*Wiedowich, Deutscher Vogel*, p. 219). In Savoy, the Golden Oriole is taken in the nets which are stretched over garden fruit. Bulhard states that the Frenchmen capture the "Loriot" at its drinking-places. They also take it by means of snares and springs when the cherries are ripe and tempting.

The Golden Oriole is often confused in the popular mind with several other species, owing to the preponderance of yellow or orange tints in their plumage. Thus the Baltimore Oriole (*Icterus galbula*) is sometimes assumed to be identical with the Golden Oriole, although the former bird belongs to the family of the American Starlings (*Icteridae*). I do not know how the modern Yankee catches the Baltimore Oriole. In Audubon's time the markets of New York were supplied with birds which had been taken in trap-nets. The bobolink (*Bobolinkus erythronus*) was trapped in the same fashion. Even now a limited quantity of the species just named are annually sent for sale to Europe. The home demand for cage-birds is in great part met by the importation of a variety of little birds of Asiatic and African origin. Dr Percy Boddall tells me that, when he was at the Gambia, West Africa, he came across the natives who stocked the steamers with small, seed-eating birds intended for the Liverpool market. Some of the fowlers were Tokotts, others were Mandingos. Their custom was to obtain the birds by alluring them to chip-nets by the agency of decoys. Birdlime is likewise used, especially by the Sanzias in the N.E. of the Transvaal. These men use the birdlime upon twigs. In Kaffaria, birdlime is often used on long lines which are stretched out across the fields of millet and Kaffir corn. The species which most frequently succumbs to this strategy is the Long-tailed Widow Bird (*Ectophasia*). The male birds are embarrassed by their enormous tails, which frequently become entangled in the adhesive gum (Layard's *Birds of South Africa*, p. 459).

[The headpiece, illustrating the capture of Starlings with a lined string, is borrowed from China, who reproduced the plate from Di Valli's original engraving.]



CHAPTER III.—GOLDFINCHES.

THE railroad from Milan to Bologna is flat and uninteresting. The eye wanders wearily over great stretches of open meadow land and cultivated fields. Almost the only picturesque feature in the landscape is supplied by the long rows of vines which hang in graceful festoons between the elms to which they owe their support, reminding us involuntarily of Virgil's words, "*Ulmis adjuvante vites*." But as soon as Bologna, with its sweet memory of the immortal Aldrovandus, is left behind, the line begins to wind in and out among the tortuous vales and tunnels of the Apennines. If birds of somber colours and small size are not easily identified from the windows of a train, at least there can be no doubt about the flocks of Goldfinches (*Carduelis elegans*) which are seen sporting hither and thither among the hills. With dainty fluttering they check their coquettish flight in order to alight upon the brink of the milky

moonlit stream. Therein they satisfy the thirst begotten of moonlit heat, or that drops of cool water over their bright and varied feathers. A feeling of sadness comes over me as often as I see these vivacious little jets beating against the sides of the flat wicker cages in which the street hawkers offer them for sale in the cities of Northern Italy. It is still more pathetic to observe the poor little crumpled bodies of "candeli" strung up in front of a pedler's stall. Their culinary value is trifling. Tanara has decided that Goldfinches have a poor flavour, and are always lean.

The chief havoc is wrought among the Goldfinches by means of the "Paretaio" or Chap-net, a remark that applies as much to Spain, Portugal, France, and England, as to Italy. Of course a certain number of Goldfinches are caught in trap-cages, and badlime is the means of depriving many of them of their liberty, but the Chap-nets are the cause of their scarcity in most places. It must not be supposed that the Goldfinch is as local a bird in Southern Europe as it is in the North. In the Mediterranean region the Goldfinch is one of the commonest of birds. Even in the north of France one often recognises the pretty love-notes of a male "Chardonnet" when the train pulls up at a country station. In Britain, however, this bird, which our forefathers knew as the "Daw-water," "King Harry," "King Harry Redcap," "Proud Tailor," "Food's Coat," and "Christmas Fool," now enjoys a restricted range, chiefly in consequence of the large number of its kind which are netted by the professional birdcatchers. Considerable hauls of Goldfinches are made by the fowlers who lay their nets in the hollows of the South Downs, as, for example, near the Devil's Dyke at Brighton. In April 1895, I had an opportunity of cross-examining a highly respectable Sussex birdcatcher, in the person of the late Edward Highlands, of St Leonards. Highlands entered the Royal Navy in early life, but subsequently retired, and supported himself by following the calling of a birdcatcher. He told me that when he was a boy, say in 1835 (for he had passed his seventieth year, and was ten years old at the time to which he referred), there was only one birdcatcher in St Leonards. In 1845 the Brighton birdcatchers commenced to extend their operations to the neighbourhood. Of late the London birdcatchers have frequented the district with the express intent of catching the "Greypates" or immature Goldfinches on the outskirts of the orchards in which they are reared. In Highlands' experience the

Goldfinch is far less numerous than it was fifty or even thirty years ago. Up to the middle of the "sixties," flocks of Goldfinches, numbering seventy or eighty birds, used to "flight" along the coast. The first St Leonards birdcatcher used only to go out "catching" twice a-week. Birds were then so plentiful that he could net all that he required for a week in a couple of mornings. The best "catch" that Highlands ever made occurred early in the "sixties." He had marked down some Goldfinches as feeding in a certain field at Battle. He started for the scene of operations at 1 A.M., with his pack of nets upon his back. The arrival of daylight discovered his nets laid. He knocked off work shortly after 7 A.M., having by that time netted seven dozen Goldfinches, which filled his store-rooms. He kept one bird out of this "catch" for a number of years, and used to lend it to "an old gentleman friend, a shoemaker." Highlands assured me that he had taken a few of the white-throated variety of the Goldfinch, known as the "Cheverel," during his long practice as a birdcatcher. He once took three "Cheverels" in a single forenoon, "all clean-out," i.e., with the red zone beneath the bill completely intersected by white. I asked Highlands to account for the relative abundance of Goldfinches on the south coast of England. His reply was that "Goldfinches, Linnets, and many other birds come to us out of Germany. They follow the coast to Calais, and strike across at the narrowest part, usually flying against the wind. Sometimes," he added, "the wind changes while the birds are crossing, and they may therefore land apparently flying with the wind; but they usually fly against the wind." It should be understood that large numbers of Goldfinches are captured in the interior of England as well as near the coast-line. When I was an undergraduate at Oxford, I often witnessed the operations of the Oxford birdcatchers. The simplicity of the poor little Goldfinches used to astonish me. They dropped into the centre of the toils in response to the decoys with little hesitation. I calculated that upwards of four hundred Goldfinches were netted by four birdcatchers in the vicinity of Oxford during September and the first half of October 1882. Two men, who worked in partnership, sent to London twenty dozen Goldfinches of both sexes. Two others captured seven dozen and six dozen respectively, on their own estimates. I am persuaded that such statistics as these would be dwarfed into insignificance by returns from the "Cider counties." Goldfinches love to nest in orchards. I have seen them in greater numbers in Devonshire than

in any other part of England. The most marked abundance of this species came under my observation in the neighbourhood of Montreux, in September 1881—but I found the "Dustelink" or "Stieglitz" breeding in all the orchards that I visited in the Upper Valley of the Rhone. I cannot say that it is equally numerous in the north of Spain; but we have Colonel Lty's assurance that it swarms in the south of the Peninsula. Some conception of the abundance of this bird in that country may be formed from the fact that *Sa. Cuviera* of Algiers forwarded 10,000 Goldfinches and Greenfinches to England in November 1894. He offered to supply further consignments of 250 birds, at one shilling each, delivered in England. Twenty years ago the London markets were supplied with many thousands of Goldfinches imported from Germany; but in the last decade the foreign supply has consisted to a great extent, of birds which are said to be sent from Russia. Large numbers are procured also from France and other countries nearer home. In the spring of 1895 I found that any quantity of fresh-caught male Goldfinches could be bought in the Paris bird-shops at one franc apiece.

The Goldfinch is a common bird in Greece, where the Clap-net is used for the purpose of abridging its liberty. Mr Merlin, the British Vice-Consul at Volo, in Thessaly, has kindly reported that "the old English 'Doy' or Clap-net figured by George Markham corresponds in all particulars with the Clap-net now used in Thessaly for netting Goldfinches, Chatfinches, and Greenfinches." He adds that "decoy-larks are used placed in small cages on sticks at the end of the central space, arranged so as just to clear the nets when closed." Mr John Saunders, of the British Vice-Consulate, Cephalonia, has most obligingly forwarded a neat sketch of a pair of Clap-nets, with the information that this engine is commonly used on that island to effect the capture of Goldfinches, as well as Chatfinches, Blackbirds, Thrushes, and a few other small birds. "As soon as the birds have entered the field" (*i.e.*, the centre of the nets), writes Mr Saunders, "the cord is suddenly pulled and the two nets close in, overlapping each other. Besides the larks in the field others in cages are placed on the ground close to, but outside, the nets." It is worth noting the fact that the nets used in Cephalonia are secured to the ground with iron pegs, and that decoys, secured by thread, are tethered in the field in centre of the nets. The pull-cord used to close the nets measures about twenty yards from the junction of the two lines (which

are attached to the stakes to the spot on which the fowler stands. Mr D. A. Pantagopoulo, of Calamata, in the Morea, has likewise provided me with a sketch of the Clip-nets used by the Greek peasants. He states that the nets used to catch Goldfinches and other small birds commonly measure 2 metres in length and have a breadth of 1/80. They are mounted on wooden stakes and secured in the earth by wooden pegs. The fowler works a decoy placed in the centre of the nets. It is mounted on a perch, which the fowler manipulates by means of a long string held in his hand. Some Greek fowlers sprinkle seed in the middle of the nets to tempt the birds to alight on the ground. The Italian birdcatchers usually attract the Goldfinches by planting a small bed of thistles or tangles on one side of the "Pinza" or centre of the nets. This plan was adopted in Tanara's time in Tuscany, a province in which the Goldfinch was formerly known as the "Caparossa" or "Caldengio." He advises the fowler to plant the tops of some hemp plants which are in seed, if it is impossible to procure a supply of thistles or tangles, since Goldfinches are eager to feed on the seeds of the first named plant. But the Goldfinches which I saw netted near Bergamo were lured to the nets with standing thistles. Tanara advises that the lured birds placed in the centre of the nets should be females. I was told by an old Kentish birdcatcher that the immature birds of this species which he caught in August responded more readily to the call of a female than to a male decoy. When I was a boy in Herts, in the 'seventies, the country people used to catch a few Goldfinches in trap-cages, to which the wild birds were attracted by a good song-bird. Sometimes one saw a few tall stemmed reeds planted beside a cottage door to arrest the attention of any passing Finch. Birdlime did not seem to find much favour with the Herts birdcatchers. In the north of England the birdcatchers capture Goldfinches principally with lured twigs placed in the vicinity of a decoy-bird. Dryden of Benwick informs me that the folk among whom he lives occasionally catch Goldfinches with lured twigs. These are fixed lightly on the top of a bush which has been planted in the ground beside a caged Goldfinch. This recalls the French system of taking Goldfinches and other small birds by what is known as an "Arboret" or "Arboret." The fowler who wishes to manufacture this engine chooses a bushy hough which measures about six feet in length. He cuts this off and sharpens the lower end, which he proceeds to drive into the earth. The small twigs are removed,

their place being supplied by lined twigs, which are stouter than those used for the "Pipes." The reason for this difference is that the twigs of the "Pipes" are intended to be invisible. In the "Arbret," on the other hand, it is desired that the birds should not only see the twigs readily, but should use them as perches. The twigs are often inserted in the larger branches by means of slits or incisions; but the Frenchmen prefer to make use of little cylinders of willow, which receive the twigs at one end and fit on to the stump of the branches which have been cut off at the other. The "Solitaire Inventiv" tells us that the pastime of the "Arbret" or "Boier" can be followed between September and April. It is intended to be adopted in an open country, in a spot which stands at a distance from any trees. Bulliard adds that the fowler should plant his caged decoys in a circle round the artificial tree; and that this kind of birdcatching commences at the break of day. The Italians and Germans, nay, even the Japanese, recognise the success which attends various forms of this diversion. But the most interesting modification of the French system is that which Mr W. H. Watel reports to me from Algiers. The Arab birdcatcher constructs his decoy-tree by tying bunches of Alfa grass to the stem of a bush which has been partly stripped of its branches. He then smears birdlime over the dummy twigs. The wild bird alights on the artificial tree, either by accident, or from a desire to join a caged decoy, which the Arab often includes in his birdcatching kit. The Goldfinch frequently resorts to the Arab's decoy-tree. The Algerian Chatinich (*Fringilla syriacus*), Wheatear, Redbreast, and a variety of other small species are taken in this fashion. The Greeks are adepts at catching Goldfinches with birdlime, also in Thessaly, in the Morea, in Zante, and other islands. Mr Pantagopulo informs me that the Greek method is to take a caged Goldfinch and place four fine twigs coated with birdlime on the four corners of the cage, with their ends projecting outwards. These lined twigs are so adjusted as to fall to the ground as soon as a bird tries to perch on their surface. When a lined twig falls under the weight of the wild bird, it carries the bird down with it. The glutinous substance adheres to the feathers of the bird and renders it the prey of the watchful fowler. Mr Norman Douglass reports to me a curious method of catching Goldfinches, practised in Moravia and Lower Austria: "The seeds of thistles are taken out, dipped in birdlime, and then replaced, so that the birds, when flitting over the flowers,

tear it with their wings and are caught. This method is said to be very successful."

[The headpiece of this chapter is reproduced from Olina's engraving of the Italian "Parvains" or Chap nets. A patch of lucerne or grass is shown in the centre of the nets, which are stretched upon stakes (5), secured to the ground by the cords which old English fowlers used to dub the "tale-lincs" and "four lines" (10 and 1). The fowler waits in the hut (6), toying with his "Bird-States," and watching for the fateful moment to arrive when he must pull his nets over any wild birds that have alighted within reach of his toils.]





CHAPTER IV.—CHAFFINCHES AND BRAMBLINGS.

THE FINCHES and BUNTINGS (*Peupullidae*) contribute in no unimportant degree to the pleasures of Continental epicures. The Chaffinch (*Frangilla caudata*) in particular figures largely among the small birds consumed in Italy, a fact which will not surprise anyone who has reflected on the wonderful abundance of this species in different parts of temperate Europe. Alike in the wild country of the Pyre de Dôme and among the pine forests of the Bernese Alps have I marvelled at the numerical preponderance of the Chaffinches, wondering at the persistency which these sprightly birds displayed in rearing early and late broods of young under the most untoward circumstances. Again and again did I

tail to the tops of the hills in Auvergne, under a burning sun, only to find the Chaffinch asserting its existence in any small scrubs that chanced to crown the searched slopes of the mountains. Little wonder, then, that the "Fringuella" should cross the Alps in immense numbers, to invade the plains of Italy at the season when the woods are dyed with many colours. Vast quantities of the "Fringuella" are captured in different parts of Italy; but the birdcatching industry flourishes most actively in the north. Bergamo, Verona, and Brescia are the three chief centres of fowling. The province of Bergamo contains 404,000 inhabitants. Of this number, 4824 take out a licence to shoot birds, while 1133 are licensed to catch birds in nets. When we consider that most of the peasants shoot and net birds *without* a licence, we may well believe the judgment passed by Professor Giglioli, that the measures taken against the birds do not constitute sport, but a veritable destruction (*non è una caccia, è una vera distruzione*").

On the other hand, all fair-minded Britons will recognise that the educated Italian is as strongly opposed to any interference with the birds which *breed* in his country as any member of the Fellowship Society. Of course, birds are trapped at all seasons in Italy. The peasants are very poor, and are ever ready to add any bird which they can snare to the pot. But the legal season of birdcatching is expressly limited to a short portion of the year. It is only intended to permit the destruction of those birds that use Italy as one of their great highways of migration. Nor should we forget that the large fowling establishments are costly, and entail a considerable expenditure. The contrivance called the "Brescinella," "Brescinna," or "Bressanella" is an illustration of the serious outlay necessary for operations on a large scale. It derives its name from the province of Brescia, in which it found its birth. It consists of an oblong piece of level ground, surrounded on three sides by tall walls of triple nets, which hang suspended between lofty poles. The nets are of an inch and a half mesh. They are hidden from the sight of the birds by a double trellis-work, which is composed chiefly of beech and vines. These plants are trained with elaborate care, and only arrive at perfection after the lapse of a number of years. The fourth side of the enclosed garden is occupied by the cottage from which the birdcatcher carries on the work of the "Uccellanda."

Count Camozzi Verona has most kindly sent me the exact dimensions

of a "Brescianella" which is situated on his estate near Bergamo. The two parallel sides of netting extend a distance of 29 metres, after which



PLAN OF BRESCIANELLA.

they merge in the semicircle of net which in this case (though not, I think, invariably) completes the enclosure. The third wall measures 36 metres. The inside length of the "Uccellanda" is 37.50 metres. The "Uccellanda" is of a uniform breadth inside its walls of 19 metres. The space thus hemmed in with nets is carefully adapted to prove attractive to any migrating birds, which no doubt regard the "Uccellanda" as a green oasis in the centre of the dry and dusty plain. Small shrubs, such as Thrushes like, are planted along at least one side of the "Uccellanda." The first "Brescianella" to which I was introduced by Count Camozzi Vertova was divided into two parallel courts, an open space being left between the two. That on the left was intended to be attractive to Chaffinches. It was

covered with gravel and overgrown with weeds. The opposite side of the "Uccellanda" was planted with bushes, with the object of inducing the Thrushes to nest in the cover thus provided. The device by which the birds are frightened into the nets is a scarecrow. This engine consists of a long wire to which bells, pieces of metal, and scraps of cloth are attached. Two such scarecrows are used. The one on the left side frightens the Chaffinches; that on the right hand terrifies the Thrushes. The wires run along the ground in two parallel trenches a few metres apart, and travel down the centre of the "Uccellanda." The wires terminate within the keeper's house. They are fitted with a mechanism by which the keeper is able to release the springs which constitute their motor force. The birdcatcher keeps watch in the balcony of his cottage. This is covered with creepers, and therefore little likely to be noticed by the birds. When the man in charge observes any wild birds hopping about the floor of the "Uccellanda," he pulls a lever. The scarecrow nearest to the birds at once flies up into the air. The sudden elevation of the wire sets the bells ringing; the pieces of broken metal jangle together, and the streamers of cloth flutter in the air. The birds are



of the bird-keepers, on his side of the road. The fence extends a distance of ten metres, and is of a height of one metre in the middle and of two metres at the ends. Although not, I think, very high, it is quite effective. The thickness of the fence is 37.50 metres. The "Ucellanda" is of a uniform breadth of 10 metres. The space thus hemmed in with nets is carefully adapted to prove attractive to any interesting bird. The bird-keeper, "Don Juan Ucellanda,"

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THE FIRST OF THE NEW BRIDGE, 1883.



alarmed by this unexpected commotion in the quiet garden, and hasten to leave such a dangerous spot. As they fly away they see the light between the trellises. Daring, as they imagine, through the open space, they speedily find themselves entangled in the meshes of the triple nets. This plan would not answer for catching larks or any birds that war perpendicularly up into the air. But it succeeds in the case of the majority of the small birds which are in the habit of entering gardens. It happens occasionally that other birds are taken in the "Bresciana" than those which it is meant to capture. The Kingfisher has been known to be taken in the "Uccellanda"; a remark which applies to the Scops Owl, Hoopoe, Great Grey Shrike, Green Woodpecker, Great Spotted Woodpecker, and Hawks of several species, not to mention Nightingales and other small insectivorous birds.

The birdcatcher employs various contrivances to induce the wild Chaffinches to enter the "Bresciana." One ingenious device is to place a "Civetta" or Little Owl in the trellis-work, close to the cage of a decoy Thrush or other call-bird. I saw this ruse carried out. The birdcatcher had the "Civetta" in readiness. He had only to pull a lever, and the "Civetta" was suddenly hoisted up to the top of the trellis and brought into close relations with a Thrush. The Thrush angrily expostulated. Its scolding notes attracted to the spot all the small birds which chanced to be in the neighbourhood. But the fowler depends chiefly on his call-birds, which sing their lustiest in little cages placed at intervals up and down the sides of the trellises. The fowler has to rise at 2 or 3 A.M. to place all the cages in their places. This he accomplishes by means of a long pole armed with a hook. The necessity of his having to ascend a ladder to place his numerous cages in the proper positions is thus obviated. The call-birds are kept at the "Uccellanda" from one year's end to the other, and receive careful attention. But the use of the singing-birds is supplemented by others, which are allowed to hop about the interior of the "Uccellanda" with clipped wings. These decoys are generally confined within the desired limits by some boards, or a little wire netting. A select few are attached to a play-stick by the bands which the English fowlers call "Braces." These articles consist of loops of silk thread, passed over the birds' wings and feet in such a way as to allow the birds to hop about at their own will, so far as the limits of the string which is attached to the swivel of the "Braces" permits.

The Chaffinches which are tethered to the "Play-stick" have liberty to hop about the ground when the fowler is not working. But if any wild Chaffinches make their appearance, the birdcatcher insists the banded birds on to the "Play-stick." Chaffinches are also taken in the "Aretajo" or Clap-net, together with many other small birds. The Italian peasant has to set his toils on any open spot in which his presence is tolerated. But the landed proprietors devote large spaces of ground to the working of the Clap-nets. The vicinity of a fowling-field may be guessed at a long distance by the lofty poles which are arranged around the "Largo," as the scene of operations is called, bearing the cages of decoy-birds at their summits. The reason for elevating the decoys is to give them an opportunity of spying any birds which appear on the horizon, and of enticing them to approach the nets. The "Largo" occupied by Count Camozzi Vertova is a large stretch of flat open land, covered with grass, and hemmed in on all sides by a ring of Mulberry trees and other timber. Two circular wooden huts are placed in the centre of the "Largo," surrounded by several pairs of Clap-nets. The nets vary in size, according to the species which they are intended to take. Thus the nets would be of smaller size if meant to capture Goldfinches than if designed to capture what are termed "*Mouineux de passage*." The Lark-nets are longer and heavier than those required for taking Chaffinches. The English fowler would be content to use one pair of Clap-nets at a time. Not so the Bergamas birdcatcher.

He has from three to five pairs of nets carefully laid out around his hut, so that he has only to pull the particular lever to close any single pair. The "*Piazza*" or space between the nets is frequently ploughed up. In some cases one side of it is planted with a bank of green herbs, which is carefully watered and offers a fresh and luscious expanse of verdure, into which a tired Pipit or other ground-loving bird is only too glad to drop for shelter. Other nets, again, are provided with floors of gravel to attract the eye of birds which have a *pouchant* for stony places. It is rather exciting to sit within one of the huts when operations are in full swing. The two fowlers crouch inside their respective houses. Their assistants circle round the "Largo," blowing with the circular metal bird-calls, which are suspended on silk cords round their necks, in the endeavour to lure any passing flight of birds to the nets. The birdcatchers have plenty to do, for they have their

"Flap-birds," or those attached to the "Fly sticks," to hoist into the air by strings. They must also be ready to pull any of the several levers by which the nets are closed. The caged droops are generally placed in a row just outside the nets. In some cases the cages are concealed in small trenches dug in the soil. Individual birdcatchers



CATCHING IN HONGKONG.

adopt the details of arrangement which they find to suit their own locality. Olina adds a wrinkle to the effect that the birdcatcher may profitably use a large cage with a division, in one side of which a live Little Owl is placed. A few Chaffinches are imprisoned in the other half of the cage. The Finches, of course, scold the Owl. Their clamour induces others of their kind to approach the nets to ascertain what the

commotion is about. The lofty poles which bear the riges on the skirts of the "Largo" are worked on iron pivots between strong supports, and can be lowered to the ground when the day's work is over. In Tuscany the peasants take a great many Chiffinches and other birds by means of what is termed the *Chien all'Aquila*, or *Chien all'Abbecenatope*. This plan simply consists of netting the birds at their drinking place. It is not peculiar to Italy. The French have long practised the same strategy. In France it is termed *la Chasse aux Abreuvoirs*. The Germans term it the "Frankbeard." The latter frequently stake wooden hoops over the ground on which the nets are to fall, to bear their weight, a measure which is occasionally resorted to by the Bergamo birdcatchers on the "Largo." But it is in Italy that the practice of netting birds at the waterside most commonly prevails. Savi bears witness to the frequency with which this device was resorted to in his day. He says that when the scorching sun has dried up most of the ponds and ditches in July or August, birds are forced to travel considerable distances to satisfy their thirst at any spring that still bubbles forth, or any fish-pond which chances to have escaped the drought. When the peasant has ascertained the whereabouts of one of these drinking-places, he sets to work to cover the greater portion of the water with roots or branches, so as to reduce the area of accessible water to the smallest dimensions. He then builds a little hut on the spot, and, having pitched his nets at the waterside, awaits the arrival of the thirsty birds.

Roster, writing of Tuscany as it is to-day, complains that "Every possidente, every native of our neighbouring villages has his hut, which is a little house of boughs, from which he can shoot into the trees to which his decoys entice the birds. Beside the hut there is another destructive method, and that is the net stretched at water, prohibited by law, but practised by all the rustics with such results. In the hottest weather all our young poachers spread straw over the water of a rivalet (which is perhaps the only one within a radius of several hundred yards), leaving only a small superficies of water open, beside which they lay the net. The birds hasten to quench their thirst, and are captured in the toils." Olina has figured Clap-nets laid on the banks of a stream in both his first and second editions of the *Uccelliera*. I have to thank Professor Giglioli for a sketch of the net used at the present time in Tuscany for the purpose of netting birds at the waterside. This "Rete aperte"

measures from $3\frac{1}{2}$ to 4 metres in length. The nets are laid on either side of a water hole, the water being shown in the drawing as occupying the centre of the "Piazza."

But the net is often dispensed with, alike in Algiers, in France, Italy, and Germany. Mr W. H. Watel reports to me that in the neighbourhood of Algiers the Arab hawk-masters take numerous small birds by means of birdlime: "Alfa filasse covered with birdlime are laid all along a streamlet side, and the birds meet their fate when they come to drink." The "Solitaire Inventiv" offers the suggestion of a similar plan of operation. He advises that limed twigs be planted in the ground beside a rivolet. The limed twigs should measure about a foot in dimension, and be fixed loosely in the soil at a slanting angle. "The best time for setting these twigs," says our author, "is between eleven and twelve before noon, and from two to three; and again an hour and a half before sunset." Bulhard affirms that if the twigs are exposed to the noonday sun, the birdlime will dry up and become useless. For this reason he declares that the use of this "Chasse" is best confined to the evening and early hours of the morning. The use of Clap-nets, however, for taking the "Fringuelli" is by no means limited to the season of extreme heat; neither is it restricted to the periods of migration. It is true that Pennant speaks of the Chaffinch being caught on migration in Holland. "They reach Holland," he says, "about a fortnight after Michaelmas, and at that time afford great amusement to the gentry at their country houses in taking them while they sit at tea in their pavilions. They spread nets among their plantations, and strew the ground with hemp-seed by way of bait. The birds arrive and perch by thousands in the trees, then alight on the ground hungry and inattentive to the danger. The nets are closed by the pulling of a cord by the persons in the pavilions, and numbers are thus taken" (*Arctic Zoology*, Vol. II. p. 381). Allerti, on the other hand, devotes some space of his MS. to the most successful plan for netting the "Fringuelli" in snowy weather. He recommends the fowler to build a hut on the ground selected for the purpose of fowling. If the occasion coincides with the first heavy snowfall of the winter, then the hut should face the mountains, because it is from the hills that the birds will then come. But if it is not the first snow of the season, and the fall is deep, the fowler will be wiser to build his hut to face the plain, as it is from the plain that the Chaffinches will then arrive. If the snow continues

to fall, the fowler must sweep an open space in which the nets can work. If the snow melts quickly by reason of a "Seitrazer" or "Matrazer," as they say, plenty of birds will be caught. If there comes a "Strizzer" and the snow congeals into ice, very few birds will enter the nets. Albert warns the fowler against laying his nets in a stubble-field in snowy weather. The stems appear above the snow and the birds peck away at the exposed straw, but decline to enter the nets. The nets must be set on the side on which the snow does not form into drifts. The passage concludes with the exhortation to place decoy Chaffinches within the nets. If birds of other species appear, the birdcatcher must endeavour to reproduce their cries, and so secure the reward which he desires. The Germans are fond of caging Chaffinches. Accordingly, they catch the "Buckhuk" or "Eldfink" with the "Vogelband" with snares, and with birdlime. One method figured in the *Illustration Vogel* is the familiar device of tethering a decoy on the ground surrounded by a circle of lined twigs. These, being planted lightly in the earth, form a low fence which is sure to detain any other male bird that runs heedlessly towards his rival.

Another German plan of catching the Chaffinch is to fasten a lined twig to the back of a Chaffinch which has had its wings clipped. The bird is then turned loose in the immediate vicinity of a wild Chaffinch. The free bird, being of a peevish disposition, forthwith attacks his rival, only to lose his own liberty. Our own London birdcatchers are warm admirers of the song of the Chaffinch, and undertake long journeys on foot in the hopes of obtaining a good song-bird, such as may be successfully pitted against others of its own kind in singing matches. The *scotch squashed* is for the Spitalfields gentleman to carry his singing Chaffinch in its little wooden cage tied up in a black handkerchief. The only other adjuncts of the sport of "Pegging" are a stuffed dummy, mounted on a wooden perch, and a few lined twigs. The poor East Londoner wanders out into the sunny lanes to the north or south of London. He listens with the attention of a connoisseur to the performances of such wild "Chaffinches" as are entering their love strains. As soon as the fowler has marked down a good songster, he plants his singing Finch under a hedge side, or in some other corner where it is out of sight. The dummy is then placed in a conspicuous position, surrounded by the lined twigs. These are made of fine splints of whalebone, and mounted on strong needles. It is therefore easy to fix them in the side of a tree.

The caged decoy no sooner hears the amorous challenge of his rival among the green leaves than he answers his defiance with a lusty burst of song. Down sweeps the wild bird, hawking with hatred towards his enemy, only to be taken in his attempt to punish the dummy, which he supposes to be the real intruder.

Belon tells us that the Chaffinch or "Pinson" was commonly caged in France in the sixteenth century. He adds that this species is a spring and autumn migrant, and that the French *bowlers* captured Chaffinches from Michaelmas to the Festival of All Saints (Toussaint). He instructs us that the Chaffinch should be captured with birdlines (traps) placed in the vicinity of caged song-birds. He suggests also the employment of several braced decoys, which are to be tied to a long line. The same idea is quoted by Gesner on the faith of another French writer, Rich. Stephanus. The Brambling (*Fringilla montifringilla*) is somewhat irregular in its immigrations into Italy. It is well known to the bird-catchers of Northern Italy, who call it the "Pepola" or "Fringello montanina." "Montanai" is the Bergamasco name for the Brambling. It is taken in the "Brescinella"—indeed, I found decoy Bramblings tethered on the floor of the "Uccellanda" of Count Camozzi Venturo. Brambilla states that the Brambling is a bird of very uncertain appearance in the province of Milan. In the years 1818, 1819, 1822, and 1823, about four hundred individuals of this species were taken in the "Roccolo" of his family annually. In 1824 only twenty-four birds were captured in the same "Roccolo." He adds that he does not take many of this species in his "Brescinella," because the large flocks which usually visit his district on passage do not alight on the floor of the "Uccellanda." If, on the other hand, a flock of a hundred birds alights for only a moment on the trees in the centre of the "Roccolo," that instant suffices for the birdcatcher to hurl his racket and frighten the whole company into the nets.



CHAPTER V.—SPARROWS AND SPARROW-NETS

WHEN driving through the picturesque villages which lie at a short distance from Bergamo, my curiosity was awakened by the frequency with which we encountered walls which had been bored with numerous small holes, just large enough to admit of the entrance of a Sparrow. On enquiring of Count Camozzi Vertova the meaning of this peculiar custom of drilling the walls and small towers with holes, he informed me that the peasants adopted a plan of preparing small holes in which the Sparrows (*Passer Italicus*) might assemble to rear their young. The peasants, in fact, provide shelter for these birds with the avowed object of securing the unfledged young before the latter are able to fly. Although aware that the unfledged nestlings of the House Sparrow (*Passer domesticus*) are exposed for sale at fifty centimes apiece in the *Marché des Oiseaux*, on the banks of the Seine at Paris, it was a surprise to me to

learn the trouble which the Italians bestow on luring Sparrows for the cuisine. A medieval device, which is known in Britain as well as in Italy, is to construct a wicker basket with a funnel-shaped entrance, allowing a bird to enter but debarring its exit on the principle of an eel-pot or a rat-trap. Cussetanus describes this contrivance under the name of the "Brochella." Aldrovandus mentions that this trap was adopted to induce the parent Sparrows to enter in order to feed their young, which had previously been placed inside. It is figured by Di Valli as a circular basket, with a funnel-shaped entrance in the centre. He calls this trap the "Canestra."

But the Italian fowlers are not content to harry the nests of the Sparrow, or even to trap old and young together. As soon as the young birds become strong on the wing and gather into flocks the peasant sets his "Panneti" or Clap-nets in the vicinity of the farm-houses where these birds assemble in the largest numbers. A plan which the fowler finds highly profitable is to peg out his nets in the direction which the Sparrows travel in visiting or leaving their favourite meeting-places. The "Panni" or walls of the net are set transversely across the "Strada" or lane which the birds are thought likely to follow. Two men generally work together. The first lies in a quiet nook, concealed, if possible, by bushes, ready to pull the nets over the birds. His companion takes up his position on the other side, grasping in his hand a pole, to the top of which a rag or flag is attached in the fashion of a banner. The fowlers endeavour to catch the birds when these latter are sweeping low over the ground. If the lookout man sees the birds nearing the nets, and judges that they are flying too high, he suddenly raises his extemporised flag. This unexpected move disconcerts the birds, and induces them to lower the elevation of their flight. They thus pass close to the nets, which are rapidly closed over them. Another kind of Sparrow-netting is to set a "Civetta" or Little Owl in the middle of the nets. The birdcatcher commences his operations at daybreak. As soon as he has arranged the Clap-nets and planted the trained Owl "in mezzo alle rete," he retires to some convenient shelter. Hardly has the fowler withdrawn than the indignant Sparrows begin to congregate together to vent their displeasure on the Little Owl. This bird is an object of their dislike at all times, but especially when they are rearing their young. They hop about the "Civetta" with ruffled feathers, trailing wings, and noisy chattering, until the fowler spreads

disorder in their ranks by pulling the nets together. This diversion is carried on until 10 a.m. More than a hundred birds have been taken in a morning. A friend informs me that in her childhood the Metropolitan birdcatchers used to spread their nets in *Paradeilly*, in order to catch the Sparrows which frequented the skirts of the Green Park. The operations were, of course, carried on early in the day, before street traffic had commenced.

The form of Sparrow-catching which was formerly most in vogue in England was the exercise of Bat-fowling. Markham tells us that this device was adopted to catch many other birds besides Sparrows. In its crudest form this pastime only implied that the fowlers went in search of the birds when at roost, and struck the poor things to the ground after they became dazzled by a strong light. Three or four of the company carried poles "bound with dry wisps of hay, or straw, or such like stuffe, or else bound with pieces of linnen, or lurdies dypt in pitch, resin, grease, or any such like matter that will blaze." Another company of fowlers armed themselves with long poles, "two very rough and bushy at the upper ends, of which the willow, lynch, or long hazell are best." The fowlers thus assembled proceeded to the intended scene of operations, and when they saw the disturbed birds "lie and play about the lights and flames of the fier," the pole-bearers struck them down. The Italians carried on somewhat similar operations under the title of the "Fangush." This sobriquet properly applies to the lantern used for night-fowling. It owes its etymology to the word *Fanusha*, from its resemblance in shape to a small oven ("Forno"). This variety of night-fowling involves the association of at least a couple of fowlers, for while one man carries a cross-bow ("Balestra"), his mate bears the lantern, together with a sort of wicker basket, termed the "Ramata," made of willow twigs. Savi observes that this operation succeeds best when a light north wind is blowing, accompanied by sleet or fine rain.

The experienced fowler betakes himself to ravines which are overgrown with brushwood. He then selects those bushes which are most sheltered from the wind. Experience has taught him that birds will be most numerous in such places. When the birdcatcher spies a dewey bird sitting huddled up on a perch, with its feathers ruffled out, he strikes it with his "Ramata," if it is within reach. If it is out of reach, then the fellow who carries the bow shoots up at his victim. The French

present used to pursue exactly the same plan, but the "Bannats" was replaced in France by a club or battledore, called the "Paquette," measuring forty-two inches in length.

In former days Sparrows and other little birds were as much in demand for feeding hawks as they now are for so-called "trap-shooting." The handiest engine for capturing Sparrows at roost in ivy or in any other confined situation was the one-poled Sparrow-net. Markham figures this engine. It consists of a large purse-net, which is attached to a pole by means of two parallel cross-bars of equal length. The lower stave is joined to the upper one by cords, so that the fowler can draw the net together at his will. Nets of this kind are still used in Cumberland, and, no doubt, in many other parts of England. But a far more destructive instrument is the true Sparrow-net, a large bag-net, ten yards in length, which can be extended in front of a row of stacks with deadly effect. It is mounted on two strong poles. Nets of this type, with local variation, find favour with the fowlers of many lands. Casson Tristram states that this form of night-fowling is practised in Syria.



One-poled Sparrow-net. (Markham.)

"The bag-net is also used at night, hung loosely between two poles, when the birds, alarmed by a lantern held in front of their roosting-place, at once fall into it" (*Natural History of the Bible* p. 163). The "Solitaire Inventiv" describes this contrivance under the names of "Kekelouene" and "C'arcel." He also recommends the employment of three layers of net for the same purpose, the fine net or "Toib" being placed in the centre between two stronger nets. The Germans are no

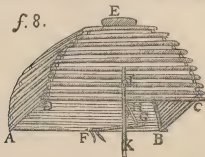
less familiar with Bat-folding or Bird-baiting than are the Russians. The Italians are partial to the use of the same engine, which they call the "Diluvio," or "Fata a sacco." Count Ettore Arrigoni degli Oddi reports that two thousand birds have been captured in the course of a single November evening by means of a "Diluvio." This incident took place in a private park in the north of Italy. Of course the fowlers of different districts adapt the use of the "Diluvio" to local conditions. The principle of bagging large numbers of sleeping birds on a dark winter night by means of a net and lantern or torches, supplemented by beaters, seems to be recognised in most parts of Western Europe. A substitute for the net has long been recognised in the manipulation of birdlined bushes. The Italians call this pastime the "Duvolaccio." Savi says that the fowler prepares this engine by winding birdlined strings around a framework of rods. The latter radiate from a common centre somewhat after the fashion of an umbrella frame. This invention is mounted on a pole, and a light is placed in the centre. The fowler chooses a dark night for fowling with the "Duvolaccio." When the gloaming arrives, the birdcatcher carries the "Duvolaccio" along the bushy hedges and copses. A companion walks along the other side of the bushes and beats all the nooks likely to afford a refuge to roosting birds. Terrified and confused the birds hasten towards the light and come into contact with the lined threads. The same form of fowling is described in the *Rivista Zanovetti* under the title of "Pansuée," or Chatfinch-catching. One form of this amusement of the Gallic peasant is to drop a lined twig at the end of a long rod on the back of a roosting bird. Another variation of the same idea is for one man to hold a naked torch, while his mate endeavours to strike all the bewildered birds that hover round the blazing torchlight with a bush which is covered with birdlime. Many of the methods for catching Sparrows and other little birds are carried out during severe weather. The Germans sometimes clear a space in the snow and bat it with hempseed and linseed. A strip of Lark-netting is stretched over a wooden framework and placed on the floor of the fowler. The framed net is held in an upright position by means of a cord, which is tightly drawn round a thick lever of wood. This is held in its place by two upright posts, which have been driven into the ground. The fowler holds the extremity of the pull-cord in his hand. When he jerks the end of the cord the tension

of the tightly drawn line is suddenly set free, and the wall of net falls with such force on the fowling floor that if it struck a man in its descent it would kill him. Caged rull-birds are placed round the open space set apart as a fowling floor.

Mr. T. H. Pritchard sends me the accompanying note from the *Lac Seul Mission*, Barkly P. A. :—"The species of birds in these parts are not many, and as a rule they are hunted only for their flesh so that they are generally killed upon the spot, the gun and the bow and arrow being the instruments chiefly used. But I have been told that, when these means fail them, the Indians sometimes make a small meshed net and attach it to a large wooden hoop. The side of the hoop thus constructed is raised up and made to rest on one end of a small stick about two feet in length, the other end being on the ground. To this stick a cord is attached, and when the birds are quite under the net the cord is pulled, and the birds, on the fall of the net, are made prisoners underneath. The birds caught in this way are chiefly snow birds."

The device just mentioned is, in fact, the Western child's representation of an idea which his Eastern brother has long been accustomed to reduce to practice, by propping up a sieve with a piece of wood. Bullard describes the French notions of "Tendues d'hiver." Of these the most noteworthy is the plan of stretching a length of netting on a wooden frame. The fixing of this trap differs widely from the nearly allied German engine. The French peasant makes a frame it is true, of eight or nine feet long by four and a-half feet deep, but he does not keep the frame in the required position by the tension of a cord which is twisted round a beam of wood. The Frenchman props up his frame of network upon four sticks, which rest on four bricks placed at the corners of the trap. A fifth stick bears part of the weight, and to this support a string is secured. The trap is so nicely adjusted that when the hungry birds have crept under the trap to satisfy the cravings of nature by gathering the seeds strewn on the ground, the expectant hunter gives a tug to the fifth stake, and down falls the whole frame upon the Sparrows which have assembled underneath. A figure of four trap can likewise be arranged to support the frame or any other kind of "Deadfall." In primitive times it was customary for the French peasant to prop up a door in the snow, with a view to its being pulled over on to the top of any little birds which chanced to be running underneath. So,

too, the use of propping up a rude basket of osier twigs with a figure of four, or some cognate contrivance has at one time or another found favour in France, in Portugal, and even in Ireland. Mr. Tait, of Oporto, has favoured me with a sketch of a basket-trap identical with that figured in the *River Innkeeper*. He observes that these traps are made of small branches, tied together with willows, and that the Portuguese call them "Cauques." The Rev. M. V. Kennedy of Castleisewerby, tells me that he first met with this kind of trap in County Clare many years ago. In Galway it used to be called the "Bodeneck Trap." It is also adopted in County Mayo. Personally I first met with it in England, but the man who introduced it to my notice, as a boy, was an Irish gardener. In Cumberland, also, this trap was apparently unknown, until Mr. Kennedy taught some lads to amuse themselves by making it in severe weather. The "Solitaire Inventiv" called this basket-trap a



TRAP-NET (FROM RIVER INNKEEPER).

"Tri-louchet," a "Mue," or a "Tombereau." He suggested that it could be utilised for trapping Partridges, it would answer equally well for Sparrows or any other ground-loving birds. The "Solitaire Inventiv" used to amuse himself by setting pitfalls for Blackbirds and other small birds. All that was necessary was to dig out a semicircular hole seven

or eight inches long and six inches deep. Over this a tile was placed, supported by the ordinary figure of four. A worm or leech was pinned inside the pitfall. This is almost identical with one of the traps that I used as a small boy for catching Sparrows. Horsehair nooses occasionally ensnare even the wily Sparrow, especially in severe weather. In the north of England the country folk catch Sparrows and other farmyard birds with the primitive snare which they call a "Gwelder." This consists of a rough network of string stretched

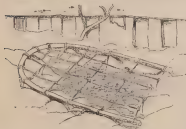


Diagram of Gwelder (from *Peacock of Lilliput*).

across a wooden hoop, or a good stout switch, which has been bent in the form of a half-hoop. The cross-strings serve to secure numerous running nooses made of horsehair. When the "Gwelder" is to be put into requisition, a few handfuls of grain are thrown on the surface of the snow. The "Gwel-

der" is placed above the grain of corn. The Sparrows, Buntings, and other famishing birds peck greedily at the corn, and of course many of them are entangled in the snares. The Tree Sparrow (*Passer montanus*) is trapped and netted in Europe by the same means as the House and Italian Sparrows.

In Eastern Asia the Tree Sparrow is the ordinary Sparrow. This is notably the case in Japan. The Japanese are as partial to Sparrows as an addition to their cuisine as the Italians. Accordingly the bird-catchers of their towns pursue the Tree Sparrow wherever it is to be found. Nets could not conveniently be set in the public streets or gardens, so the Jap pursues the town Sparrow with a lined twig, which is carried at the extremity of a long rod of bamboo. When the Sparrow allows the twig to be worked within reach, it is adroitly dropped upon the back of the bird. In country districts the Japanese fowler is able

to exercise his craft without being hindered by artificial constraints. The principal engine employed by the Japanese for netting Tree Sparrows is the "Muso-net." The Tree Sparrow, it must be remembered, is as great a pest to the Japanese farmer as the House Sparrow to the British agriculturist. "Though the Sparrows are small birds," says a Japanese writer, "yet they make lots of mischief amongst the rice and other corn fields. If we catch them in a lot, and they generally fly about in a crowd from the beginning of autumn to the end of winter, we get better crops on the one hand and a delicious dish on the other. The Sparrows are afraid of the Hawks; yet, if they are among the cornfields, they are safe from being assailed by the Hawks, and especially when they are flocking together. They are not driven away even by 'Naruko' (i.e., a rudely constructed rattle to scare birds), and they do a lot of mischief." It is natural therefore, that the aid of the fowler should be invoked in checking the intrusions of these birds. The "Muso-net" varies in size according to the purpose for which it is intended. For Sparrow-catching the net may be of small size say six feet in length and five feet in depth. The net resembles a single Clap-net in principle. A single sheet or wall of netting is mounted by means of cords to two parallel bamboos, these answering to the staves of an English "Clap-net." The staves which bear the net are secured with strings to two wooden pegs, which are driven firmly into the ground at either end of the net. The net is mounted on the bamboo staves by means of rings placed around the bamboos. A line attached to the upper part of the staff nearest to the fowler keeps the net in its proper place. The pull-cord, which brings the net over the birds like a Clap-net is attached to the middle of the nearest staff.

The Japanese are also in the habit of taking Tree Sparrows in nets at night. The engine in vogue for this purpose is a long net, made of fine silk thread, and intended to be extended as a wall of netting for a distance of eighteen yards. It is called the "Kasumi-net." Rings are sewn along the upper margin of the net, in order to support the main line which bears the weight of the net. The fowler first ascertains by observation that the Tree Sparrows are in the habit of roosting nightly in a particular bamboo hedge or bush. He goes to this spot with his net. There arrived, he drives two stout bamboo posts into the ground at the necessary distance apart, and arranges the net upon the cord

which passes between the two posts. Care is taken that the bird-catcher can raise or lower his net at will, as occasion may require. The net is adjusted in the daytime. When night arrives, the fowler and his mates return to the spot, and proceed to drive the birds into the net by beating the bushes. One of the party carries a light, in order to dazzle and confuse the startled Sparrow. Another device by which the youth of Japan catch Tree Sparrows is to select a tree which overhangs the edge of a rice field in which Sparrows are in the habit of feeding, and dash its branches over with birdlime. In due course the birds are approached by 'Young Japan.' On being disturbed, the Sparrows take wing, but only to alight after the fashion of their kind in the nearest tree, which happens to be that which has already been coated with birdlime.

[The headpiece of this chapter represents the Japanese method of netting Tree Sparrows at night.]





CHAPTER VI.—BULLFINCHES AND BUNTINGS.

IT may surprise some Englishmen to learn that many of the cage-birds kept in this country have been imported from Russia. The fact is, however, that birdcatching has always flourished in the empire of the Czar. Mr. Douglass writes to me that, at the present time, "every large Russian town contains professional birdcatchers and markets for skinned birds. Besides this, the peasants all over the country trap and catch every sort of bird. In St. Petersburg the 'catchers of every description collect at the special bird-market called Tschoukin Dvor, principally on Sunday afternoons. Annunciation Day (25th of March, old style) is a particular day for buying wild-birds and setting them free." Schrenovski affirms that the birdcatchers of Tula were, at the beginning of the century, more efficient than those of any other part of Russia. Tula is a town in Central Russia, situated about a hundred and fifty miles south-east of Moscow. The species which the Tula birdcatchers sought after with the keenest zeal was, and probably is, the Bullfinch (*Pyrrhula major*), the northern representative of the common English form

(*Pyrrhula europæa*). This is notably the bird which led to an avian trade between Russia and England, chiefly on account of its rich colour and large size. In Poland and Scandinavia this bird is taken in hanging snares and in the springes set for Thrushes. The same fate often overtakes the Pine Grosbeak (*Pinus vulgaris*). The Tula birdcatchers require to effect its capture in a living state. They achieve this end by setting Chap-nets in the fields in the vicinity of linden timber. All the snow is removed from the ground, and lindenwood is planted around the floor on which the nets are laid. Drowsy call-birds lure the flocks of Bullfinches to the spot. These at first perch on the tops of the trees, but the display of bright red berries from the mountain ash tempts them to descend into the middle of the nets. Our own birdcatchers net Bullfinches in a similar way. I have been surprised to observe the lofty trees in which these birds voluntarily perched in order to take their bearings of the decoys upon the ground. In Great Britain the market is mainly supplied with fresh-caught birds which have been taken in trap-cages or with lined twigs. The Bullfinch can be lined to the cage of a decoy at any season. As a boy, I amused myself with hanging out a male Bullfinch to awaken the jealousy of the wild males. Even in July, when they were catering for the support of their own unfledged nestlings, the wild males tried to give battle to the caged intruder. In Germany the Bullfinch is chiefly reared from the nest by hand. The Italians capture many of these birds in the "Rosole." Another bird which is often caught in considerable numbers in Northern Italy is the Common Crossbill (*Loxia curvirostris*). The movements of this gipsy wanderer are proverbially uncertain; but Count Camozzi Ventura assures me that the "Crociere," or "Bee-in-crus" as it is called in Bergamasco, often visits his "Bresciamella" in considerable numbers. I found caged birds of this species among the call-birds used in his "Uccellanda," and a number of caged Crossbills were offered to me for sale at Milan and Bergamo. The Germans usually take the "Kreuzschubel" by the medium of what is termed the "Klitten-stange." This is a central post to which hindlimed twigs are attached. The "Stange" or chief stem of the Fowling-tree is supported between two strong upright posts, and works on a pivot, so that it can be raised or lowered to the ground without difficulty. It stands eighteen or twenty feet high. It is furnished with a cross-piece, which carries three upright stakes. These are pierced to

adult of twenty or more lined twigs being inserted in their sides at an angle, ranged one above the other. Branches of fir are tied to the Stange immediately below the cross-bar, and again at a height of six feet above the ground. Cages of tame Crossbills are hung up immediately under the fir branches. The wild Crossbills readily respond to the invitation of their caged brethren, and, perching unawares on the summit of the artificial tree, are taken prisoners. Another plan, chiefly resorted to in the forests of Thuringia, is to attach springes to the topmost boughs of the pine-trees in those open parts of the woods which these birds are observed to frequent. In this case also the use of a caped decoy is an important feature of success. The Russians catch Crossbills in a similar way. Mr. Douglass informs me that, in the northern provinces, "the tops of fir-trees are smeared with birdlime; the birds fall down, and are sold in the towns on Easter Day, when these birds are in special request." Aldrovandus tells us that in his day the Germans procured many of these birds in nets, referring probably to their capture in the "Vogel-band." I was once acquainted with an Essex birdcatcher who took a quantity of Crossbills in Epping Forest. These birds visited his feeding-grounds in large numbers. Another species which he used to net every autumn was the Hawfinch (*Coccothraustes vulgaris*).

The Pine Grosbeak (*Pinicola enucleator*) is often named for the markets of Northern Europe. Count Estere Aragoni degli Oddi records the capture of an adult male Pine Grosbeak in the "Boscanello" of Sag Simonetto at Arqua Petrarca in October 1894. The Hawfinch (*Coccothraustes vulgaris*) is too scarce in most parts of England to be taken with the Clap-nets, but in districts in which it is common a good call-bird can lure even the wary Hawfinch into dangerous proximity. One has known, too, exceptional instances of this bird being captured by irregular agencies—entangled in a net stretched over a row of peas, or forced by hunger to enter an ordinary brick trap sunk below the level of the ground. The Italians catch large numbers of the "Frasone" in certain seasons. This bird is irregular in its movements, and is at times a serious immigrant even to Lombardy. Brambilla writes that the Hawfinch visits the province of Milan less regularly than the Brambling. He inclines to think that it has become altogether less numerous on passage during the last fifty years. In his father's time many individuals were netted in the family "Boscolo." In 1806, the number caught in this "Uccellanda"

was 106. In 1809, the total yield of Hawfinches was 95 individuals. On the other hand, the greatest numbers secured in the "Brescandella" were the following: in 1861, 61, in 1876, 50, in 1884, 45. A Milanese proverb affirms "San Simona la jorna da Frusone" St Siman's Day falls on the 28th of October. The "Furia" signifies the height or greatest intensity of the passage of migrating birds. The experience of the elder Brambilla showed that the principal passage of these birds took place in his neighbourhood between the middle and end of October. His son considers that there are two distinct migratory movements of Hawfinches in his district. The first of these consists of young birds, which are probably bred in Italy, as they visit the "Uccellanda" in August and September. The birds which arrive in large quantities in October are, doubtless, genuine *corymbores* from the forests of Central Europe. Glazioni reports that the number of Hawfinches taken in his "Boscolo," in the district of Colico, varies from year to year. The first birds arrive at the beginning of October, and the last have passed by the 15th of November. In favourable seasons as many as from 200 to 300 are netted in this "Boscolo." I did not myself meet with the Hawfinch in the Italian markets; but I found caged birds of this species in the "Uccellanda" which I visited. Indeed, it must be confessed that I tried to meet the wishes of my host by placing a Hawfinch on my dinner plate one night, but the first morsel of the poor "Frusone" nearly choked me. Savi mentions that Hawfinches are taken with Clap-nets in the Olive gardens, as well as in the Thrush-nets. Giesner tells us that the Italians of his day cherished an unfavourable impression of the Hawfinch, witness the proverb applied to a weak and stupid person, "Tu sei un frusone dal becco grosso."

The "Kernbeisser" is common in many parts of Germany, and is sometimes shared in horsehair nooses baited with service berries. The Greenfinch (*Ligustrus sibilans*) has little to commend it to the attention of the fowler, except that it is a plump morsel when ready for the spit. The Italians find no fault with the "Verdone" or "Ligurino" on that score. Tunara instructs us to sow hemp on the ground intended to be occupied by the Clap-nets, since the heads of that plant are sure to prove attractive to the Greenfinch. This bird is captured in most parts of temperate Europe by means of birdlime twigs. I knew an old Edinburgh birdcatcher who used to capture great quantities of "Greenies" in

this way in the fields round the northern capital. The Linnet (*Linnetus caeruleus*) is often caught with birdlime by the miners of the Bander counties, some of whom place staked dummies on the hedgerows to induce the free birds to alight upon them 'sticks.' Thousands of both Linnets and Greenfinches are captured every autumn by the London birdcatchers, chiefly in Chipmets. I have seen the shops in Seven Dials so glutted with newly caught 'Greenbuds,' that the dealers were thankful to sell them for a penny apiece. Pallas shows that the Russian birdcatchers must place a higher value on this bird than their British confrères. He narrates that the Moscow birdcatchers of his day were in the habit of undertaking a journey to Penza (which is more than 150 miles from Moscow as the crow flies), in order to catch 'many thousands of Greenfinches,' which were carried for sale to Moscow. He adds that the birds were specially abundant in the village of Kurbowka, but they generally swarmed about the stacks and threshing-floors of the villages of the government of Penza. Associated with the Greenbuds were huge droves of the Siskin (*Carduelis spinus*). The Tula fowlers place a high value on the latter bird. In June, about St. Peter's Day (the 29th, old style), the Tula birdcatchers proceed into the woods for the purpose of trapping the young Siskins, which are called the 'Petrioh Smishka.' The netting season for taking 'branchers' terminates in the middle of July. On the 30th of August the fowlers again betake themselves to the woods, where they remain until the middle of October, employed in capturing Siskins with their Chipmets. During this period large flocks of Siskins pass through the district, and the hauls of the fowlers are correspondingly great. It sometimes happens that fifty birds are taken at one time in the nets. No less a number than 400 has been secured in a single day, but under exceptionally fortunate circumstances. The French and Germans take Siskins in Chipmets, trap-nets, and with birdlime. In Italy, the Siskin, like the Serimitch (*Serinus hortulanus*), is taken in the "Parietino," indeed, I have seen hundreds of the latter birds either exposed in bunches or ready plucked for the spit. But the former bird is chiefly taken in Italy in the "Uccellanda." It is true that Olina only speaks of the "Lucarino" or Siskin being taken in the Chipmets; but his remarks apply more particularly to the neighbourhood of Rome. In the north of Italy, the "Roccodo" is the contrivance which seems to prove most fatal to the Siskin. It makes its first appearance in Italy at the

end of August, but the bulk of the migrants pass through Leamford between the end of September and the last days of November. Brandoll mentions that two remarkable flights of Siskins visited his "Rogole" early in the century. In 1821, no fewer than 110 Siskins were obtained in his "Rogole" between the 21st of September and the 13th of November. Again, in 1824, the total capture of Siskins between the end of September and the 11th of November amounted to 418 individuals. The Siskin, by the way, is often caged in Japan. Mr. Allen Weston of Yokohama, sends me the following note: "There is an item which may be of interest, and that is the way the Japanese take Siskins and birds of that kind. They say that these birds have *high roads*, and that, by careful watching, it is possible to distinguish the regular highway. When this is ascertained, an almost invisible net is hung across from tree to tree in some narrow place—a gully leading up into the hills, for example. The villagers turn out by hundreds and drive the whole countryside towards the net, taking care to drive the birds along their road to the net spread across it. In this way a thousand Siskins have been taken at one catch." The Russians adopt a curious device for snaring the Siskin. The fowler constructs a small hut, of just sufficient dimensions to afford him room to lie in. Bundles of hemp or barbed are piled round the hut. Call-birds are also exhibited to lure their wild companions to partake of their favourite food. The fowler is armed with a long and slender rod, to the end of which a horsehair noose is attached. This engine is manipulated through a small window in the side of the fowling hut.

The Siskin is a fearless little bird. It is easy to understand that a practised fowler might very easily succeed in capturing a number of birds by this plan, especially if snow was lying on the ground and the available food of the Siskin happened to be scarce. The device is not peculiar to Russia. Albertus mentions that in his day the Goldfinch was often taken in exactly the same way. A modification of the same idea is the well-known plan of attaching a lured twig to the end of a long rod. It is then dropped lightly on the back of a bird, which is picking away at the alder buds. The Siskin, feeling the twig, elevates its wings, and so is captured. James Smith of Drumbargh assures me that he has often resorted to this simple strategy to catch both the Siskin and the Lesser Redpoll (*Arctia refulgens*). The latter bird is occasionally captured in immense numbers by the London birdcatchers. It is, however, taken

chiefly in Trap-nets, alike in France, Germany, and Italy. In Lombardy numbers of Lesser Redpolls are taken in the "Rozzolo," but their movements south of the Alps are irregular. The Mealy Redpoll (*Leontides fransen*) and the Twite (*Leontides agrioides*) are often netted in large numbers in the south of England. The former species was numerous on our south coast in the winter 1895-6. These birds passing their migratory journeys to the Mediterranean region but the Twite is comparatively a scarce visitor south of the Alps. The Snowfinch (*Monticola saxatilis*) makes its home among the mountain passes which lie far from the hunting-grounds of the ordinary fowler. Bailly says that the Snowfinch is caught in Savoy in a variety of snares (Pièges). Grain which has been steeped in *arsenic* is scattered on the surface of the snow. "At Mont Cenis," says Bailly, "traps intended to catch Snowfinches are baited with small pieces of scarlet cloth. The unsuspecting birds peck at the bright material, and so are taken." The remaining members of the *Fringilline* are captured by various devices. Speaking generally, their capture is secured by the use of Trap-nets, Trap-nets, or lardline. The Buntings (*Emberizines*) call for little remark with the single exception of the Ortolan (*Emberiza hortulana*). This bird is a spring and autumn visitor to Southern Europe. It enjoys a classical reputation for the excellence of its flesh, to which it owes its commercial value. I found a female Ortolan among the decoys which the birdcatchers employed on the "Largo" of Count Camozzi Ventura. There can be no doubt that this species is, and has been, chiefly taken in the Trap-nets in different parts of Europe. A few examples of both this bird and the pretty grey-headed Meadow Bunting (*Emberiza cin*) are taken from time to time in the "Rozzolo," but the bulk of those imported to Britain and other countries are netted with ground-nets. Tanara assures us that in his day numbers of Ortolans were obtained in the vicinity of Bologna. De Valli affirms that comparatively few of this species were formerly captured in Central Italy. But in Lombardy, says the same author, where these birds were abundant, many of them were caught and kept in confinement. When fattened, the Ortolans reached a weight of three or four ounces apiece. He adds that, "se ne fa grandissima industria per presentarla a mandarli in variate parte." Olinz warns us that the "Serbatoio" or preserve of Ortolans should fulfil the following conditions. The room in which the captive Ortolans are confined must be darkened. The light

admitted should suffice only to enable the birds to eat and drink. The birds must not be permitted to see the green fields, lest they fret or "gli metta in malconia." The supply of water must be renewed at frequent intervals. The walls of the "Serbatoio" must be well plastered to keep out rats and mice. The walls should be coloured grey. The room should be furnished with bushes and perches on which the birds can rest. The captives must be well supplied with millet seed. Tamarca refers first to the capture of the Ortolan being effected in the month of April. In this eventuality, the birds become in good condition for consumption in the following June. Others are netted in the months of July and August. Those persons who cannot devote a room to fattening Ortolans are advised to keep these birds in the long cage termed 'Mozzani.' This cage measures a foot in depth, and two or three feet in length. In winter these fattened Buntings should be kept in the kitchen, or in a warm room. They should be provided with a light, so that they can eat at intervals during the night. The birds are finally killed and plucked. Their bodies are then packed in boxes filled with meal or even bean, in which they will keep good for a fortnight or twenty days, and despatched to customers all over Italy.

The "Sottane Inventir" informs us that the Ortolan arrives in France, like the Quail, in April and, like that species, departs in September. The months in which its capture is chiefly effected in France are July, August, and September. The means of procuring this species are the "Nasses" or Clap-nets. These are to be pegged out on some open plot of ground, removed from the vicinity of any large trees. The manipulation of the nets is identical with the customary uses. In the neighbourhood of Paris Ortolans are too scarce to be netted—at least so says Richard, adding that the species in question is shot when met with by sportsmen. In Gascony, he continues, the arrival of the Ortolans upon the stubble-fields in autumn is as great a happiness to the natives of that province as were flocks of migrating Quail to the Israelites in the wilderness. The much-prized Buntings are netted like Larks. It is curious that Belon seems to pass over the Ortolan without comment. Yet the learned Gesner only chanced to be acquainted with this bird because he had received a specimen from Aldrovandus. The latter furnishes his ponderous text with no fewer than seven figures of the Ortolan, representing white and yellow varieties, as well as birds in normal plumage. Aldrovandus mentions

that great quantities of *Oriolans* were caught in the fields around Florence and Bologna. Not only did men of both rank take a pleasure in despatching presents of *Oriolans*, carefully packed in metal to their friends at Rome, the dealers were also able to command remunerative prices for such *Oriolans* as found their way into the public markets. The Common Bunting (*Emberiza hortulana*) is another bird which often garnishes the table of the Tuscan epicure. Savi observes that many of these birds are taken in Clap-nets on the plain of Pisa. The fowlers secure their largest hauls of the "Sordillozzo" by pitching their nets across the line of flight which the species in question is found to adhere to in returning to its favourite roosting-place. The "Dolavio" or Bat-folding net is likewise employed to capture Corn Buntings, as well as the Yellow Bunting (*Emberiza citrinella*), when roosting in low bushes. The latter species is often taken with birdlime-sacks placed at intervals on the top of a hedge, notably in Scotland and the north of England. All the examples of the Snow Bunting (*Plataspheus nivalis*) and Lapland Bunting (*Coburnia lapponica*) that have been sent to me by the Brighton bird-catchers had been caught in Clap-nets.

[The headpiece of this chapter is based upon a sketch of the "Uccelliera" worked by Count Gabriel Camozzi Vertova of Bologna. It was drawn for this book, and shows the luring-house from which the songsters are caused to frighten the birds into the nets. These last are represented as hanging between the foliage of trellis-work in the right corner of the picture. The fowler can approach his walls of net unobserved by passing under the gallery of vines which connect the nets with the house.]



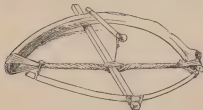


CHAPTER VII.—FOWLING FOR LARKS.

THE LARKS (*Alaudidae*) enjoy the enviable prestige of possessing vocal powers superior in charm and compass to those of most other Passerine birds. This reputation has been earned by the splendid variety of liquid notes poured forth by the Calandra Lark (*Melanocorypha calandra*), the Wood Lark (*Luscin sibilatrix*), and especially the Common Skylark (*Alauda arvensis*). But the European reputation of the last named rests principally upon the merits which its flesh is considered to possess. The English have never indulged in the destruction of small birds for the cuisine to the same extent as their French or German neighbours. Yet even in England (I believe Scotland to be guiltless in this matter) there

has long existed an unwholy *predilection* for the flesh of Skylarks. Polydore Vergil, who resided in England for many years subsequent to 1501, assures his readers that "The chief birds of the Englishman consisteth in fleshe . . . Of wilde birds these are most delicate, particularly pheasants, quailles, coveys, thrushes and larkes. This laste bird, in winter season, the wether being not so outrageous, dothe waxe wondrous fatte, at which time a wonderful number of them is caught, so that of all others they chiefly garnishe mens tables" (*History of England*, First book, p. 23). It is not impossible that the capture of the Larks just described was effected by driving the flocks of Larks gently up to strings which had been sagured with birdlime previous to being stretched between small stakes across a suitable field. This plan is occasionally resorted to even at the present day in the north of England. Another time-honoured device was to stretch long strings between short posts in the haunts of these birds, numerous horseshoe nooses were attached to the strings in question at a distance an inch apart. Grain was then sprinkled between the rows of snares to attract the birds, which of course, flocked to the food, and were caught by their feet as they ran between the lines of nooses. This plan has been widely practised in Europe. In Syria and the East it is replaced to some extent by the kindred device of fastening a number of horseshoe nooses to the sides of a cage in which a living decoy is confined. The German fowlers are fond of securing single Skylarks as cage pets by means of a lined twig tied to the tail of a decoy-bird. The lined twig consists of a forked branch, which is so adjusted as to intercept any wild Lark that descends to attack his supposed rival. The latter is turned loose in a field with the points of its wings tied together. This bird naturally excites the amatory jealousy of any free Lark that happens to be soaring in the heavens above. Down he comes to oust the trespasser from his home, and becomes the prey of the fowler, who is lying in wait. I have not been able to ascertain that spring-traps are used for catching Larks in the north of Europe, though aware that large quantities of Columbian Larks are caught by such means in Sicily. Thus in the province of Calimassetta the peasants catch a large number of the species of Lark just mentioned in the month of February, while engaged in sowing the corn which they call 'Marzulke.' The trap employed for this purpose is that designated as the "Balestria," which I believe to be identical with the circular spring-trap which the French distinguish as

the "Arbalestre." I have not found any description of the "Arbalestre" being specially used in France for catching birds; but the "Solaire Inventive" commends its adoption as a means of capturing the Garden Dormouse (*Myomys subula*), when that pretty little animal committs ravages upon fruit. The "Arbalestre" is adopted in the north of Africa as a means of trapping Larks and other small birds. Mr W. H. Watel, of Algiers, has been good enough to send me a couple of the small wire traps now used in his neighbourhood for catching Larks. I cannot see any difference between these circular wire spring traps and the similar traps which can be bought at any ironmonger's shop in England. Mr Watel says that an Arab will set three or four dozen of these little traps in a stableyard, a field, or an unfrequented roadway, covering over the trap with sand. There can be no doubt that these cheap European traps have displaced the old Moorish snare of "Arbalestre." Mr Charles A. Payton writes to me that "the town-boys of Mogadore have curious little springers, of a bow shape, for trapping the numerous little marsh and mud-birds, such as Ring Plovers, Sandpipers, Wagtails, and the like." Mr G. H. Fernon, of Casablanca, has taken the trouble to procure a specimen of the Moorish trap to which Mr Payton alludes. The "bow" portion of this

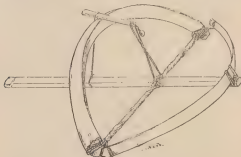


MOORISH TRAP.

trap is formed by the rib of a quashaped, and measures about nine inches in diameter. A strongly-plaited string is drawn tight between the two extremities of the rib, having in the centre a piece of wood about three-tenths of an inch in breadth, and a length of five inches. A fine but strong splint of cane is fitted into a central groove in the distal extremity

of the centre-piece, so as to form a second bow, which lies, when at rest, underneath the bow formed by the rib. It only requires the addition of a short piece of cane attached to the centre-piece of the gin. If a short loop of string or grass is attached to the centre-piece inside the bow, it becomes an easy matter to adjust this trap. The bow is then forced back and kept in position by the wooden peg, which catches the loose nose already referred to. A grain of corn or an insect is attached to the trigger of the trap. When a lark or partridge pecks at the seed it springs the snare.

The Dean of Chino has most kindly brought to me from Egypt a couple of these bow-shaped traps. These small engines are made with



EGYPTIAN TRAP

three pieces of cane. The bow, which falls upon the bird measures about one inch in depth, and is heavy in proportion to its size. The spring is supplied with a piece of tightly coiled plait of hair. When the trap is in use the heavy bow is held back by the wooden peg or trigger, which catches in a thread loop. A single pea is strung upon the thread loop. As soon as a bird touches the peg, the bow is released and springs forward upon the bird.

Mr. Syam has brought to me from China a trap of the same construe-

tion. It is made of wood. It only seems to differ from the African patterns in the provision of a small wooden catch, in which the trigger rests. I am indebted to Mr F. W. Snyan for a specimen of the little trap here figured.

It is employed by Chinese peasants for catching Larks and Buntings. A small snare is extended on the two centre-pieces of the trap. The bird alights on these low perches to peck at the seed with which the trap is baited. Its weight releases the catch,



CHINESE TRAP.

and the snare is jerked into the air and becomes entangled with the bird's feet. This trap was brought to me from the Yangtsé-Kiang Valley.

The ground-having habits of the Larks expose them to the risk of capture when roosting on the open plain. The peasants of the Roman Campagna still catch Larks and some other birds surreptitiously by means of a long-handled net, which Olini figures as the "*Lanciatina*." A round bag-net, knitted of the usual mesh for catching Larks, is attached to the end of a long pole by means of two pieces of wood, which form a fork, so that the engine bears some resemblance to a landing-net. A Roman sportsman observed to me that the "*Lanciatina*" appears, in Olini's drawing, to consist of a net attached to a *very short* handle; whereas the pole which bears the net should not measure less than seven feet. The fowler chooses a dark winter night for catching Larks with this net. He carries a lantern and throws the sound of his footsteps with a bell. So far as I can gather (and I have made various inquiries on the subject), the use of the "*Lanciatina*" is not recognised in Northern Italy at the present day. That it was formerly practised in the vicinity of Bologna is rendered certain by the remarks of Bartolomeo Alberti in his *Curiosities Bolognesi*. He there incidentally

describes the use of the long-handled Lark-net, in similar terms to those used independently by Olina. But, whereas Olina represents the Roman peasant as carrying a huge bell attached to his waist-belt, Alberti informs us that the fowler must have his belt or legs loaded with small bells ("Campanelli e di campanacci"), so attached as to tinkle when the peasant thus accoutred walks through the heath, for the birds are familiar with the tinkling of cattle-bells. The Italian fowler carries a lantern like his Roman counterpart, and quietly drops his net on the top of the birds as they crouch on the ground. Alberti himself compares the net used in this kind of fowling as similar to the fishing-net which his fellow-countrymen termed the "Canessa" ("Rete da pescare").

In the south of Spain the practice of taking Larks and other little birds with bell and lantern supplies the marketers with myriads of small fry. Mr. Abel Chapman has related me to his charming work *Wild Spain* in which he says that the engines of the fowler are the "Cencerro" or cattle-bell and the dark lantern. As most cattle carry the "Cencerro" around their necks the sound of the bells at those quarters by night causes no alarm to the ground birds. The bird-catcher, with his bright candle gleaming before its reflector and the cattle-bell jingling at his wrist, prowls nightly over the stubbles and wastes in search of the roosting birds. Any number of bewildered victims can thus be gathered, for Larks and such like birds fall into a helpless state of panic when once focussed in the bright rays of the lantern" (p. 36). There was a time in "Merrie England" when the right of catching Larks by such means was so highly valued as to be restricted in practice to the owners of land. The title of "Law-belling" was employed to distinguish this variety of fowling from other methods. An old indenture of lease between Lawrence Rogers, citizen and cloth-worker of London, and Francis Aunger of East Clandon in County Surrey, Esquire, dated 24th Eliz. Nov. 20 (1582), expressly reserves "to and for the said Edward Carleton and Marie, their heirs and assigns, all views of Frankpledge, felons goods, rapiers and estrays within the said manors, . . . together with liberty to go to a butt fowling, *liberty to go with lawbell*, liberty of hawking, and liberty of hunting the hare, fox, and other beasts of warren" (*Notes and Queries*, Fourth Series, Vol. III p. 35). That the sport was widely recognised as a pasture may be inferred from its mention in the ballad of "St. George for England":—

"As timorous larks amazed are
With light and with low-bell."

The compound term of Low-belling requires an explanation, because the word "Low" has become nearly obsolete. Yet it survives in the homely dialect of the north of England. As an instance of this, I may mention that one of the Esk preachers described to me in the vernacular how a light is often employed in getting salmon that are lying alongside of a weir. He told me that the collection of the lantern or candles, cast upon the fish, is still known to the members of his fraternity as the "Low" or "Low." Hence it will be readily understood that "Low-belling" is the combined use of a light and bell. For instructions as to how to go "Low-belling" we must refer to the early English writers, and especially to the work entitled *A Jural for Gentles*. The use of this form of fowling is "to goe with a great light of Cressets or ragges of linnen dipt in Tallow that will make a good light, and you must have a panne of plate, made like a lantern, to carrie your light in, which must have a great socket to hold a great light, and carrie it before you on your breast, with a Bell in your other hand of a great bignes, made in manner like to a Cowbell, but of greater bignes and you must ring it allwayes after one order, with two to goe with Nets one of each side of him that carries the Bell, and what with the light that so doth amaze them, and the Bell that so doth astonish them, they will, when you come nere them, turn up their white bellies, which you shall quickly perceive, then lay your nets on them and take them; but the Bell must not stint going: for if it cease, then the birds will flye up if there be any more light. This is a good way to catch Larkes, Woodcockes, and Partridges, and all other land-Birdes."

Markham also gives an interesting account of the Low-Bell. "After the night," he says, "hath covered the face of the earth (which commonly 'tis about eight of the clock at night), the Ayre being mild, and the Moon not shining, you shall take your Low-Bell which is a Bell of such a reasonable size as a man may well carry it in one hand, and having a deep, hollow, and sad sound, for the more quick and shrill it is the worse it is, and the more sad and solemn the better: and with this Bell you shall also have a net (of a small mesh) at least twenty yards deep, and so broad that it may cover five or six ordinary Lands or more, according

as you have company to carry it (for the more ground it covers the more is your sport, and the richer the prey that is taken). with these instruments you shall go into some stubble field either Wheat, Rye or Barley, but the Wheat is the best, and he which carrieth the Bell shall goe the foremost and toll the Bell as hee goeth along so solemnly as may be, letting it but now and then knock on both sides, then shall follow the net, being loane up at each corner and one each side by sundry persons; then another man shall carry an old yron Cresset, or some other vessel of stone or yron in which you shall have good store of smolders or burning coales (but not blazing), and at these you shall light bundles of dry straw, Hay, Stubble, Linkes, Trenches, or any other substances that will blaze, and then having spread and pitch your Nette where you thinke any Game is hovering all your lights blazing), with noyses and pikes beat up all that are under the Net and then presently, as they flock up, you shall see them entangled in the Net, so as you may take them at your pleasure, as Partridges, Bayles, Larkes, Quails, or any other small Birds of what kind soever which lodge upon the ground which done, you shall suddenly extinguish your lights, and then procede forward and lay your Net in another place." The Germans are famous as a nation for the havoc wrought in the numbers of their native Larks by means of the method widely known as "Das Larchenstrichen," which was, however, confined in its most flourishing days to certain districts. It is now, I understand, illegal, or at any rate restricted in its action.

Of the vast number of birds which perished through the "Larchenstrichen" there is no necessity to speak. The system involves the erection of long walls of perpendicular nets, ranging one after another across the open plain in which this branch of fowling was carried on. The mesh of the net measured two inches. Each net measured about three hundred yards in length and about six feet in depth. Twelve such nets, according to Brehm, usually constituted one "Wande" or wall of net. These walls of net were placed at a distance of from twelve to eighteen feet apart. Sometimes the fowler was satisfied to range only three of these long walls of flight-nets behind one another, but the series usually consisted of six "Wandes." Occasionally as many as eight or even nine "Wandes" would be set together. These great walls of nets varied but little in height. Those which were placed in the rear were usually furnished with two additional rows of meshes, so that they

projected a little above those in front of them. Thus the Larks which flew over the first line of nets, probably entered the last of these engines. The fowler set his lands of nets in a flat stubble country, facing east. The posts intended to support the nets were as much as nine feet in length, and were driven into the ground at a distance of seventy or eighty feet apart. The first row of posts was twelve feet wider than the next. The second, third, and fourth rows exceeded their immediate predecessors by distances of thirteen, fourteen, and fifteen feet respectively. On the other hand, the last net but one only exceeded the last by a single foot. The nets were supported by a strong line, which passed through a series of thirty or forty small rings, each of which was firmly secured to the outer margin of the upper portion of the net.

These little rings were variously made of iron, brass, or horn, and were of a sufficient diameter to allow the upper line to pass freely through their centres. They enabled the nets to be pulled together like the folds of a curtain. In places where the stubble was smooth and level the nets might be allowed to touch the ground with their lower edges, but they generally hung at a height of a foot, or at least six inches, off the ground. Autumn was the time when the German Lark-catchers reaped their harvest, particularly from the middle of September to the end of October. Buggy weather was unfavourable to such an enterprise. If dew or rain fell heavily the nets were liable to be soaked. Adken thread was found to resist the action of weather better than that made of flax or hemp fibre. The labour required for working a set of these nets was considerable. Two or three men were often kept to attend to each wall of net. Their business was to drive the birds, and see that all the meshes of the walls of netting hung in the way desired. Twenty or thirty men were required to drive the Larks into the nets, a ticklish undertaking, which was carried out about dusk. The *march geschick* was for a man and a boy to take a portion of the field and drag it with a ground line, which they paid out gradually. A number of drivers started together, directed by the whistle of the foreman fowler, who decided whether the driving ("Treiben") was to be early or late, and rapidly or slowly carried out. As soon as the drivers arrived within a hundred or a hundred and thirty paces of the nets, the foreman made his men halt, leaving the Larks to be finally driven up to the nets.

The fowlers of Thuringia used to regulate the time of their Lark-

driving by the appearance of the "Abendsterne" or "Evening Star." Driving commenced when that planet became visible. In other districts the fowlers were guided by what they termed the "Lerchensterne." We are left to guess to which of the heavenly bodies this term may have been appropriated. It was a star of medium size, set high in a southern quarter of the heavens, which is all the information that Brehm vouchsafes to give us. As soon as the head driver recognised that the planet had commenced to exercise its benedict influence, he whistled to his subordinates, who at once dragged the ground up to the nets with long cords, shouting noisily. The Larks, thus roused from their expected rest, hurried low over the ground, and the greater number flew into the first wall of net; the remainder entered one or other of the nets behind the first row. As soon as driving terminated, the fowlers at once disengaged the struggling birds from the meshes, and killed them by crushing their heads or breasts. The produce of the nets was thrown into small sacks or baskets. The number of the birds thus captured varied according to circumstances. In many instances the fowler was well content to catch twenty or thirty dozen in a single evening. This estimate was often surpassed in specially favoured fowling stations, where eight or even nine "walls" of nets were worked. Under such circumstances as many as twelve and even fifteen hundred Larks were netted in an evening. Such returns were needed to recoup the outlay of four hundred thalers or more which the establishment of such a set of nets would necessitate. Moreover, the bands of nets were liable to be much injured by gales of wind.

I cannot say that the German method of Lark-catching has found much favour in other European countries. It appears to be equally unheard of in France and the British Isles; Spain and Portugal know it not. It is represented in the north of Italy by the system entitled the "Antennella." Count Camozza Vertova has procured for me a photograph of this variety of fowling, taken in the immediate vicinity of Bergamo. It represents a long series of very fine perpendicular nets, stretched between posts, and extending right across the "campo" or field, the wall of net being set at the angles most likely to intercept any flocks of Larks that might be driven into the meshes of the "Antennella." Although the meshes of these nets are woven of silk or fine thread, the birds would see them in the daytime. At dusk, on the other hand, the folds are not so easily perceived; hence considerable numbers of Larks are taken, as

well as some Snipe and other birds that frequent the open plain. This method of fowling was known to Savi; but he expressly passes it over in silence, on the ground that it was not practised by the birdcatchers of Tuscany.

It has already been observed that our Teutonic neighbours at one time consumed an almost incredible quantity of Skylarks. More than 500,000 Larks were supplied to the city of Leipzig in the month of October. But it may be questioned whether the war of extermination waged against these birds on British soil was not almost equally severe. The stubble fields of the Midlands in particular afforded attractive feeding grounds to the swarms of foreign Larks which then, as now, sought to winter in this country. The most celebrated centre of the Lark-catching industry was the town of Dunstable. Thomas Baskerville visited Dunstable in 1681, and entered the following remark in his itinerary:—"Dunstable is a pretty good market-town in Hertfordshire (*ar*). It hath a fair church in it, and the ruins of an abbey or a religious house, situate in a plain under the hills, having large fields about it, where in the season they catch good larks, which have the greatest esteem for birds of that kind in London" (Portland MSS. ii. p. 274). The same traveller observed that the expression "A Dunstable lark and straw hats" had passed into a proverb when he passed through Dunstable.

It is interesting to learn from Pennant that the Dunstable Lark-catchers plied their trade by means of Clap-nets. This form of engine was used for Lark-catching four hundred years ago, and perhaps earlier. The nets described by Pennant measured fifteen yards in length and two and a-half yards in breadth. The nets described in the *Recall for Gentrie* measured "about foure fadome and the breadth a fadome and somewhat better." Markham recommends that the nets should measure three fathoms in length and a single fathom or six feet in breadth. Bulfinch estimates the length of the French nets at forty feet, which is less than some of those which I have seen used in Italy. The season for Lark-catching is identical in England and the Continent, except that the Englishmen in early times may have commenced operations before the tide of immigration of Larks had begun to flow upon our shores from the Continent. Markham remarks that "the time of the yeare for these Nets is from August till November." We know from Pennant that the

Dunstable Lark-catching commenced about the 14th of September and lasted until the 25th of February. On the Continent the month of October is *par excellence* the season for *la chasse aux alouettes*. In England the fowler has never, to my knowledge, fixed his nets continually in a single field, finding it more profitable to shift his position according to circumstance of weather and local conditions. The Italian fowler does the same if he is a poor man and has no special rights, for then he is obliged to fix his nets wherever he can find an advantageous spot from which he will not be dismissed by the owner of land. But the local proprietor who keeps a regular Lark-catching establishment in Italy fixes his nets permanently in the centre of some "Campo" or wide, flat field. He often cultivates a little green patch of lucerne or other crop, as an inducement to the Larks to drop into the "Pinza," as the open space between the two spread nets is termed. The man of means improves upon the ordinary Lark-nets. Some of those which I saw worked near Bergamo were so long, and mounted on such heavy poles, that the addition of strong spiral springs of steel had been found necessary to enable the fowler to pull the nets together with sufficient rapidity. I was assured that these springs weighed as much as a hundred and twelve kilos. They were fixed to large masses of rock which were buried in the ground. The portion of the springs exposed to view was painted green, to match the colour of the field. The Italian larkcatchers showed me a few live Larks in their storerooms of decoys; but they chiefly attracted the Larks into their nets by means of the banded birds, which they call "Zimbelli" or "Endici." Some of these are simply tied to a small peg, which is fixed in the ground. These are called "Passeggini" in Tuscany, and are what an old English fowler would have dubbed his "Stakes." The "Endici" are live Larks, tied to a crossed arrangement of two slender rods. These two rods are tied firmly athwart one another, and their lower ends are tied to a couple of pegs driven into the ground a little distance apart. The "Endici" are secured to the free ends of the rods. But the arrangement of decoy-Larks, which the Bergamo fowlers seemed to think of most importance, is that which they know as the "Zambelloni." Two stout poles of about eight feet in length are planted in the ground between two different sets of Clap-nets, for the Italian can work five pairs of nets at one and the same time, a feat which, I believe, would surprise most of his British

confines. A glass ring of one inch diameter, called the "*Anello di vetro*," is fastened edgewise to the side of that pole which stands nearest to the hut of the fowler at a distance of about eighteen inches from the summit of the pole. A long string is firmly fastened to the top of the furthest pole and carried to the fowling hut, passing through the glass ring of the second pole. When at work the fowler ties a dozen or two of live larks to that portion of the line which lies between the two poles. The birds are allowed to rest quietly on the ground, when nothing is doing. If a flock of Larks appear on the "*Campo*," the fowlers whistle their lustiest. The man who sits in the hut pulls his string of Larks, and the poor birds swing in the air with fluttering wings, as if they desired to alight. The sight stimulates the desire of the free birds to join company with the decoys, and they are thus lured to their doom.

The city of Pisa has a special reputation for Lark-catching. Savi gives a pleasing description of how his fellow-citizens of all ranks used to become amateur fowlers, to find a relief from the constant cares and worries of the year ("*per aver così un sollievo alle continue e noiose cure dell'anno*"). The Larks which I saw caught in the Italian Clap-nets were Wood Larks and Skylarks. Many Calandra Larks were exposed in the Florence Market in October. These, I was told, had been taken in the Clap-nets. The same remark would apply to the south of Spain, where the Calandra is much sought after as a cage-lark. One feature of Lark-netting which I missed in Italy was the use of an artificial mirror to attract the Larks into the nets. The Italians more often *shoot* Larks to the mirror, or to a little Owl or "*Civetta*." Sometimes a "*Civetta*" is placed in the centre of a pair of Italian Clap-nets, in order to induce the birds to strike at the Owl, but this is the exception. In France, as in our own country, the use of a revolving mirror has long been regarded as a serviceable adjunct of netting Larks. It is scarcely necessary to add that considerable ingenuity has been developed in the manufacture of a toy which is as much to the taste of our Parisian neighbours as to that of the sportsmen of the Japanese empire. The pastime of popping at Larks, as they dart to the mirror, has also been naturalised in Russia. Personally, my interest in the Lark-mirror belongs to the past, since modern improvements rob old uses of their interest. The Lark-mirror, described in *A Journal for Gleaners*, was a three-square piece of wood, a foot in length, and three inches each square: it must

be painted red and be all inlaid with square or round pieces of looking-glasse, it must have a fente in the midst, which must go into a wide socket of wood, made in a strong stake, which must be stricken into the earth, then to the fente must be fastened a jack thread, which being wound many times about the fente, and issuing through a little hole of the Stake, must come to your fente, so that when you pull it, the woode will turne so round that it will give a strange reflection, and so continuing the turning, it will entice the Birds to play wonderfully.

Mackham furnishes a somewhat similar account of the "Looking-glasse," but the triangular body-piece of the mirror which he mentions was two instead of three inches deep, and studded with about twenty small pieces of looking-glasses, & paynt all the spare wood betwixt them of a very bright red colour, which in the continuall motion and turning about, will give such a glorious reflection, that the winter birds cannot forbear but will play about it with admiration till they be taken.' The "Solitaire Inventiv" describes and figures the Lark-mirror as made of an arched piece of wood an inch and a-half thick, the lower extremities being about nine inches apart. This hoop-piece has five facets, which are grooved to admit of the insertion of small pieces of mirror. This five-sided mirror, when complete, revolves on its axis by means of a string, which passes through the support of the glass and is pulled by the fowler at his will. The French birdcatchers placed the mirror in the centre of the nets, just like the Dunstable men, who used both the Lark-mirror and decoy-Larks to coax the wild birds into their nets. Richard tells us that some Lark-mirrors are crescent-shaped, others flat below and round above; others, again, both round and flat like a plate, and some are oblong in form. He enjoins that the framework of the glass should be painted reddish brown, thus conforming to the old English use. Anyone who is interested in the mechanical details of Lark-mirrors should consult the twelfth chapter of the *Acicptologie Française*. It should here be observed that the author of the *Secret for Hunting* advises the fowler to supplement the use of "Stakes" by means of "a long pole, hung about with shuttle-cocks of feathers, which you shall place within thirtie or fortie paces of your Nets, so directly in the mouth of the wind, that they may whirle and turne about with a ceaselesse motion: this will gather about you abundance of Larkes and all sorts of Birds." Similarly, Mackham enjoins upon his readers that when the nets are spread "you shall, some twenty

or thirty paces beyond your Nets, and as much on this side, place your Gygges, or playing wantons; being fastened to the toppes of long poles, and turned into the wind, so as they may play and make a noise therein, and these Gygges are certaine toys made of long Goose feathers in the manner of shuttlecocks, and with little small turnells of wood running in broad and flat Swan quilles made round like a small hoop, and so with longer strings fastened to the Pole, will with any small wind or ayre whatsoever, twirle and flicker in the ayre after such a wanton manner, that the Birds will come and in great flocks to wander and play about the same." In the coast districts of Lancashire the title of "Cymbal nets" has been conferred upon the "Day" or "Clap" nets of our south coast. Thus we read in *A Country's Notebook*:—"A great help to the Cymbal-nets for luring in of larks about your net, is a gigue of feathers standing a distance off, which twirls swiftly round on the least breath of wind. When the sun doth not shine, a fox tail pulled up within the compass of your net will make the larks strike at it as if it were a wasel" (p. 272). Mr F. S. Mitchell says that the working of these nets is known on the Lancashire coast as "Simmin" or "Simblin." He adds that the Lancashire fowler uses a small stand termed the "Mill," with a piece of looking-glass and a red rag fastened to it, which revolves when the cord is pulled. The nets, of which the mesh is ten to the foot, are set on a bright sunny day, with the wind blowing directly into the face of the fowler. He sits on his empty box, and as soon as a Lark approaches begins to whistle; its attention being attracted, he makes the brace-buds flutter and twirls the mill, and when the wild bird has come sufficiently near, whether impelled by curiosity or what, the nets are rapidly pulled over and the prize secured. In favourable weather an average of eight or ten dozen a day, of which about eighty per cent. will be caught alive, can be taken, September and October being the only months in which birds "strike," as it is called well (*Birds of Lancashire*, p. 96). Pennant warns us that Skylarks will not "Dare" or strike the mirror after the weather has grown gloomy, for which reason the Dunstable birdcatchers descended their Clap-nets after the 14th of November. Their industry was carried on, after that date, by means of the Trammel-net, a square engine measuring twenty-seven or twenty-eight feet in length and five feet in depth. This was mounted on two poles, each eighteen feet long, and carried by two men. "The fowlers quarter the ground as a setting dog; when they hear or feel a Lark hit

the net, they drop it down, and so the birds are taken" (*British Zoology*, Vol. 1, p. 300). Markham also gives a terse description of the "Trammel or long Trammel Net," which, he says, differed chiefly from the net used in lowbelling in being of somewhat greater length. "This Net," he says, "when you come into the place where the haunt of Birds are, which rest upon the earth (being such as are before named) you shall then spread it upon the ground, and let the neather or furthest end thereof (being plummied with small plumets of lead) lye loose on the ground and then leaning up the foremost end, by the strength of men at the two foremost ends, only trale it along the ground, not suffering that end which is borne up to come neere the ground by a full yard or more. Then on each side the Netts shal bee carried great blazing lights of fire, such as were formerly spoken of, and by the lightes others with long poles to leane up the birds as they goe, and as they rise under the Netts so to take them."

We are told, in *A Jewell for theatre*, that the fowler who is ambitious to use a "Tramell" must provide himself and his mate with a net "Seaven yardes of length and five in breadth, then take a couple of Poles or long rods, so long as your net is, and lye your poles to your nets all along the length of your nets, one of one side and the other of the other side, then may you take your pole in your hand, and plucke out your pole out of breadth, and one goe in one throw of the hand and another in the other throw, and goe along in lunds, and carry your net as farre forwardes as you can, and when they heare you tread, then will they flatter up into your net, which you shall quickly heare, then let downe your net to the ground, and grise them, and take them from under your net, but if it be in a very darke night, that you cannot see them, you should have a little close lantern, that one may perceive no light, but when it is opened to see to take them, but we commonly make shift without." The "Solitaire Inventiv" and other French writers dilate at great length on the use of the "Tramell" or Trammel-net. It is employed for Lark-catching in Russia and Germany, under the title of the "Nachzug," but I cannot say that the foreign uses of this engine differ materially from the English use. It is right to mention that the old-fashioned French fowlers used to capture large numbers of Skylarks in frosty weather by setting two traps in a line, so that they covered the entire length of the ground which the nets occupied. This plan was called the "linder." Dooey-Larks were pegged down

beside the net. The free birds were gently driven up to the net from three-quarters of the field. When the expectant birdcatcher calculated that they were sufficiently near, he pulled a string of decoy-Larks, which fluttered and twittered to their wild brethren, thus luring the latter alongside of the Clap-net.

[The headpiece of this chapter is reproduced from Olina. It represents the now illegal amusement of netting birds by night with the long handled net known as the *Lancabou*. The peasants of the Roman Campagna employ this engine chiefly to effect the capture of Larks and Quail. According to the *Sponto Illustrata*, the Woodcock is occasionally netted in the same fashion.]





CHAPTER VIII.—TITS AND PIPITS.

THE WAGTAILS (*Motacillidae*) contribute an appreciable number of victims to the autumn fowling of the Italians. One of the species which crosses the Alps into Upper Italy in September and October is the White Wagtail (*Motacilla alba*). The common Italian name for this bird is the "Ballerina." The Blue-headed Yellow Wagtail (*Motacilla flava*) is called the "Striscinjola." These two species are netted in scores with the Clap-nets, especially if the nets are laid in the vicinity of water. When studying the Bergamo fowling, I saw the Blue-headed Wagtail driven up to the nets by one of the lardcatcher's assistants, but the White Wagtail is *par excellence* the prey of the lardcatchers. I have known the Yellow Wagtail (*Motacilla citr.*) netted in dozens by London lardcatchers who called them "Woodwites", but this is a scarce land in Italy. The greatest hauls of the "Striscinjola" are made during the burning heat of August, when the birds eagerly resort to the waterside.

The birdcatchers of Italy generally place a number of live Wagtails in the "Piazza" or centre of the nets to allure their wild fellows to join them company. I found that the Bergamas fowlers used caged Wagtails as decoys. Another plan is to place a Little Owl in the middle of the nets. Sometimes these birds are taken with lined twigs placed on the ground in the neighbourhood of the "Civetta." Yet another method is to catch these birds with the aid of a lantern ("Fungolo") when at roost on the banks of some pond or stream.

The Pipits (*Anthus*) swarm in the grassy plains of Italy in autumn, especially the Meadow Pipit (*Anthus pratensis*) and the Tree Pipit (*Anthus trivialis*), with a lesser number of Water Pipits (*Anthus aquatilis*). I saw this latter bird netted at Bergamo and feel no doubt that many of those that are bred on the high summer pastures of the Alps furnish the Italians with a dainty dish. Even Richard's Pipit (*Anthus richardi*) shares the same fate. But the Meadow Pipit is taken in far greater numbers than the other members of the family, especially in Lombardy. The Clap-nets are the chief engines used in the capture of this bird. Decoys are used; but success is said to depend largely on the skill with which the fowler imitates the call-note of the "Moss-creeper." That exquisite representative of the Cuckoos (*Cathartes*), the Wall Creeper (*Tachycineta muraria*), sometimes succumbs to the strategy of the Swiss peasant. The only bird of this species that I ever held alive in my hand was a lovely old male which had been crippled by a shot which did not draw blood, but yet disabled it from flight. Bailly attests that its capture is sometimes effected by means of hooks, these are baited with insects, and placed along the rocks or precipices which the Wall Creeper is accustomed to traverse. Robson informed Dresser that on one occasion a Wall Creeper was caught on board a vessel on the Euxine, Bohn was acquainted with this bird as a native of Auvergne; for he describes its colour correctly, even to the crimson of its wings, which he observes are "mouchetées de rouge, comme celles d'un Jean Papillon." Nevertheless, his figure of the "Pie de Muraille" appears to have been based on the skin of a Lesser Spotted Woodpecker. Gomer gives us a woodcut of the Wall Creeper in winter dress, and Abbondio does the same.

The Common Nuthatch (*Sitta europæa*) is perhaps almost the only member of the family (*Sittidae*) that is ever sought after by the fowler.

It is an easy bird to trap on account of the constancy with which it returns to a favorite haunt, and the eagerness which it manifests to possess itself of any nuts that may form the bait of a spring-trap. I have known English birdcatchers who were in the habit of catching both Nuthatches and Titmice (*Parus*) in Chap-nets pitched under the trees which these birds frequented to feed on beechnut.

The Nuthatch is more difficult to catch in spring than in autumn, but even at the former season a eged derry and lined twigs are the only articles necessary for procuring its capture, for the male birds are very pugnacious in the breeding season. Not that I advocate the capture of the Nuthatch at any time, for I would far rather see the bird unmolested. But it is an entertaining bird in captivity, and far better company than any Finch. The Germans are fond of trapping Titmice in the forests of the Vaterland.

The Great Titmouse (*Parus major*), which is called the "Kohlmeise" in Germany, is the species taken in the largest numbers at the "Meisenhütte." The Coal Tit (*Parus ater*), which the Germans term the "Tannenmeise" or "Firn-mouse," is also frequently captured. The Crested Tit (*Lophophanes cristatus*) occasionally pays a visit to the "Meisenhütte," but only when the fowls is catching birds in black forests of pines, at least so says Bechm. I do not know why it should be so, in Spain I certainly found the Crested Tit in woods composed exclusively of deciduous timber. All the same I never met with the Crested Tit in Switzerland except in fir woods. The Blue Tit (*Parus caeruleus*) and the Marsh Tit (*Parus palustris*) are not very often found in coniferous forests. If the German birdcatcher desires to capture these two species, he builds his hut in a plantation of mixed timber. The hut is a square structure built of branches, and provided with an open space on one side. If the hut happens to be placed in a fir wood, it is constructed of fir branches. Elsewhere it is covered with reeds, sedge, ivy, or other handy materials. Its position is selected with a view to intercept the numerous droves of Titmice which wander from east to west or from north-east to south-west in autumn. The season for Tit-fowling begins in the middle of September and lasts until the end of October. The birdcatcher provides himself with a Tit-call ("Meisenpfife"), which measures three inches long, and is made out of the barrel of the quill feather of a goose.

The trap by which the Titmice are intended to be taken is composed of a kind of perch, called the "Kloben." This measures about three feet in length, and is intended to capture any bird which alights upon it by the toes. So far as I can judge, the principle of the "Kloben" is identical with that of the French instrument known as the "Braï." This was known to Belon. Buliard figures the "Braï" as used in Auvergne, Lorraine, and Burgundy. It is formed by dividing a cane longitudinally. The two halves are united by means of a line, which is secured to the lower extremity of the inferior perch. After passing three times through both of the perches, the cord finally reaches the hand of the birdcatcher. The fowler holds the cord in readiness, to be jerked tight whenever any bird alights on the rod. The fowlers of Burgundy were in the habit of making huts in the woods, and attracting Titmice, Chaffinches, and other small birds with the usual calls. The idea

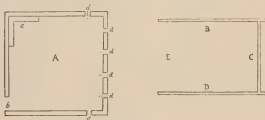
is not familiar to the ordinary Italian fowler. Mitelli, of Bologna, not only adopted the idea, but developed it further, inventing perches armed



THE BRAÏ (after Buliard).

with serrated edges or teeth, by which the detention of any unlucky bird that incautiously alighted upon the engine was rendered certain. Mitchell did not succeed in engrafting his ideas upon the fowlers of Italy.

But to return to the "Meisenbütte." The Deutsch birdcatcher fixes half-a-dozen of the "Kloben" upon the roof of his hut, taking care that he can obtain a view from inside of any Titmouse which comes to spy out the cause of the mysterious call. If a Great Tit alights, with its customary twitter, upon a "Kloben," the perch closes with a snap, and the bird is held tight by its feet until extricated by its captor. The fowler often supplements the "Kloben" by making what is called the "Meisentanz," or "Titmouse-dance." For this purpose a square space is marked out on the open side of the hut. This is next fenced in with three six-foot poles, which are fixed between posts, forming a horizontal railing around



THE MEISENBÜTTE.

the three sides. The fourth side, which is immediately in front of the hut, is left open. The three sides of horizontal railing are required to support a large number of horsehair snares, which are set at a distance of three or four inches apart. The railing stands at a height of four or five feet from the ground. The plan shows A, the centre of the hut, b is the door of the hut, the six letters, d, d, d, d, d, d, indicate the six spy-holes through which the fowler works the "Kloben," c is a corner of the hut in which a bench and table are placed, B, C, D are the sides of the "Meisentanz" set with snares ("Spaukeln"); E is the open side of the enclosure, left open to enable the fowler to command a clear view

of the parallel side C. Another plan is to mount small lined twigs on the end- of tall hazel rods, which again are elevated on poles.

Di Valli figures the Italian method of catching the Great Tit, or "Spernuzola" by means of a decoy and birdlime. The call-bird is placed in a separate cage, and a number of lined twigs are set at an angle all round the cage, which is covered with green leaves. This Titmouse is a common species in all parts of Italy, but the ranks of the resident birds are increased in autumn by fresh arrivals from beyond the Alps. Signore Delato writes from Belluno that an extraordinary autumnal movement of the Great Tit occurs in the district of Feltre about every ten years. The quantity of birds that pass on such exceptional circumstances is immense. Delato has seen an expert fowler capture three hundred Great Tits in a single operation of five hours' duration. The birdcatcher had a call-bird and eight lined twigs ("Pansoni") to take this noteworthy number of birds (*Ateneum Italia*, Vol. IV, p. 203). At other times, five or six Tits would have represented a fair day's catch. The Coal Tit also appears at intervals in unusual numbers. Stefanini observes that this species appears in Bergamo in large numbers in September and the latter half of October every two or three years. At such times the boys of Bergamo hang decoys out of the windows of the houses, attaching a lined twig to each cage. I have known the Blue Tit to be caught in Bayswater in the same way, except that a trap-cage was substituted for the lined twig. Olina mentions that even in his time the Titmouse were taken in trap-cages as well as with clap-nets and birdlime. Bodin remarks that the blossom of the common sunflower is an excellent bait for Tits. When a boy, I assisted in capturing a few Marsh Tits and Great Tits by this identical ruse. The popular name of "Oxyce," which is so often applied to the Great Tit, dates back to the sixteenth century at least. It seems to have been suggested by the small size of the Tit. Gesner affirms that this bird was known in Britain as the "great titmouse or the great oxen." In Italy, according to the same authority, the Goshawk was called the "oculo hominis, id est oculus hominis, a magnitudine." The Germans apply the name of "Messen Schlag" to the trap-cage which they employ for catching Titmouse and other small birds; it does not seem to differ from the traps used in other parts of Western Europe for a similar purpose. The chief feature of these contrivances is, that when a bird enters the trap, its weight upon the perch

dislodges the latter from a catch, and allows the lid of the cage to spring forwards, thus cutting off the means of exit. The French adopt the same trap, variously modified, under the name of "Pêluchet." But they likewise employ another trap for Tits, which is called the "Mesangette" or "Hakengette." This latter is intended to serve as a winter amusement. The peasant takes a board and bores a hole at each corner and a fifth hole in the centre, to admit of the same number of small pegs or upright pieces of wood being fixed in the holes. The two longest pegs are placed at the back of the board to serve as pillars, to which the lid of the trap can be attached. The two front pegs measure three inches, and serve to bear the weight of the lid when the trap is closed. The peg in the centre measures only two inches. The sides of the trap are built up with small willow or elder twigs, to form a lattice-work, reaching to three inches in height. A second board, of the same size as that already used for the floor of the trap, is hinged on to the two tallest pegs, so as to complete a box-trap. The "Mesangette" is baited with grain, and the lid is supported by a small peg which rests on two little perches laid across the central peg. In this case also the bird, in entering the trap, alights on and disturbs the equilibrium of the perches, the lid is thus set at liberty and drops on the intruder. The countrymen place a number of these Tit-traps about their gardens, walls, and even their chimneys. The fell-folk of Cumberland have a contrivance of their own for snaring Tits. They adopt this measure in the belief that the buds of fruit trees are damaged by the attacks of these birds. The *modus operandi* is to tie a number of horsehair nooses to a string, and then wind the line around a small bundle of corn. One is taken that the nooses stand out in all directions from the wisp of grain. The sheaf is then placed in a gooseberry or black currant bush, to await the arrival of the petty pillager. That exquisite gem the Azure Tit (*Parus cyaneus*) is caught in Russia by means of a trap-cage like other Titmice. The Banded Tit (*Parus binnensis*) is occasionally sought after by Continental bird-catchers. Mr Labouchere furnished the following note to Dresser: "These birds are comparatively common in Holland, especially in the marshes round Amsterdam, where they are yearly caught in great numbers by the birdcatchers, the time to catch them being the early part of October, when the old birds go on foraging expeditions, accompanied by the young ones to the number of six or seven in a flock. They are

caught by means of nets, which are laid down among the reeds, while decoy-birds are placed at a short distance. Professor Normann captured several specimens by "the aid of a little birdlime placed on the end of a stick." Hux remarks that Bearded Tits are so intent on searching for the seeds of the reed that he found it possible to capture specimens "with a birdlime twig attached to the end of a fishing-rod."

[The headpiece of this chapter is based upon Mitchell's engraving.]





CHAPTER IX.—SHRIKES AND WAXWINGS.

THE SHRIKES (*Lanius*) are chiefly sought after as pets in China and Japan. The Chinese Red-tailed Shrike (*Lanius lucionensis*) is the favourite of the Peking birdcatchers, who train this species to sit on artificial perches and to hawk little birds. They value it, likewise, on account of the excellence of its song. The bird which the Japanese fanciers prefer is the Bull-headed Shrike (*Lanius bucephalus*), a common resident in Southern Japan. This Shrike lives a solitary life, each individual tenancing its own district of the wood or mountain. If a strange Shrike enters the domain of another individual, the owner endeavours to expel the intruder as a trespasser. The Japanese fowler provides himself with a live Shrike, which he equips for the fowling operations by sewing up the eyelids of the bird, thus temporarily depriving it of vision. The bird is then tied by its feet to a T-shaped perch. The perch is smeared with birdlime ("Mochi") with the exception of the three inches of its length nearest to the perch. A line is then

attached to the bamboo on which the bird is mounted, in order that the fowler may control the tame bird. The birdcatcher places his decoy in a suitable position under a tree or bush, in full view of any wild Shrikes that may come to reconnoitre. He then retires to the shelter of an adjacent bush, holding in his hand the line which is attached to the upper portion of the decoy's stand. He uses the string to pull the Shrike's perch too and fro. The blinded bird cries out with fear. Its chattering draws together any other individuals of the same species that happen to be in the vicinity. The free birds resent the intrusion of the new arrival, and attack it, desiring to drive it off their ground. The captive stretches out its wings, and stoops forward to avoid the blows of its assailant, which first strikes at its head. The latter then seeks to tackle its rival from below. With this object it perches on the side of the rod on which the decoy is fixed. But, alas! the birdlime holds the wild bird in its tenacious grasp. The fowler at once runs out of his shelter and seizes his booty. A Japanese birdcatcher can secure several Shrikes in a day by this method. In Italy the birdcatchers take the Redbacked Shrike (*Lanius collurio*), and in lesser numbers the Woodchat (*Lanius excubitorides*) and the Lesser Grey Shrike (*Lanius minor*). Olina figures the latter bird as the "Castrica," called the "Verla" in Tuscany, and the "Stragazzina" or "Ragazzola" in Lombardy. The name "Averla" is now conferred on all the Shrikes in Italy. Olina remarks that this bird was taken in his time with springs ("Archetti"), as well as with the Trap-net ("Gabbia scarentina") and the "Ragna" or Spider-net. It becomes as fat as a "Beccafico." Count Ettore Arrigoni degli Abbi enumerates the Redbacked Shrike in his list of the birds supplied in the greatest numbers to the poulterers of Padova. Giglioli supplies some interesting statistics of the birds received by a Florentine poulterer from country districts. In 1886 this dealer received 378 Shrikes on the 25th of August from Fano. On the 1st of September no fewer than 819 were sent in from Fano. On the 3rd of September 400 Shrikes and Calandra Larks arrived from the same quarter; on the 4th and 5th the numbers of these two species despatched from Fano amounted to 300 and 700 respectively. The smaller number of 176 Shrikes was received from Fano on the 15th of September, and the supply of Shrikes terminated in that month. The birds taken represented the Lesser Grey, Redbacked, and Woodchat Shrikes. Later in the year the Great Grey Shrike

(*Lanius excubitor*) is occasionally represented in the markets of Northern Italy. I found a fine example of this bird hanging, in a bunch of Jays, outside a small poultryer's shop in Bergamo. Count Salvemini informed Dresser that the Woodchat is taken in Italy, "either in snares or on lined twigs with a grasshopper as a bait." Savi volunteers that the Shrikes of Tuscany are taken in either the Trap-cage ("Ritosa"), with lined twigs, or in springes ("Archetti"). A live Grasshopper, placed inside the "Ritosa" or before the snare of the "Archetto," is an irresistible bait for the Shrike. The fowler is careful to set his sponge or Trap-cage in a field on the edge of a wood, or at any rate in the neighbourhood of some tree or tall bush such as the "Avicla" is likely to alight upon. The wholesale destruction of these birds is reducing their number. Fusini, for example, remarks that "The Shrikes (*Lanius*), now comparatively rare, were at one time extremely common. I remember that, when I was a boy, I used to catch them with lined twigs and the Mole Cricket, of which they are gluttonously fond, and one could take forty or fifty in a day." The device just referred to requires that a Grasshopper or other insect should be suspended in the air by a string, so that the appetising bait hangs a few inches above the ground. Three or four lined twigs are planted in the ground near the insect, in order that when a Shrike observes the bait it may fly on to one of the lined stakes. This plan is carried out among the hills near Florence. Mr G. E. H. Barrett-Hamilton kindly tells me that the Woodchat and various other birds, which like to perch in conspicuous places, are snared in the neighbourhood of Tangiers. The trap employed for their capture is a "Springe," of a similar pattern to that used in Poland for snaring Fieldfares. The horseshair snare is drawn over a small perch. When the bird alights on the perch, its weight releases the little peg which keeps the switch bent. The bough springs back, and the noose is drawn tight round the feet of the victim. It is curious that the same type of trap should exist in Poland and North Africa. It was formerly in fashion in England for taking Jays (see pp. 6, 94).

But to return to the use of birdlime for taking Shrikes. Jordan refers to a strange expedient which is practised by some Indian bird-catchers. These men use the Shrike as a means of bringing other birds within reach of their lined twigs. A Pallid Shrike (*Lanius pallasi*) is picketed to the ground, closely attached to a Starling, and the bushes in

the vicinity are smeared over with birdlime. "All sorts of birds come to witness the supposed fight and to separate the combatants, and many are captured by the lured branches." The Great Grey Shrike is indispensable to the Dutch Hawk-catchers, who depend upon its keenness of vision to detect the flight of any passing falcon. It might be supposed that the same individual decoys would answer the purposes of the falconer for several seasons. This is not the case. The late Mr. Adrien Molten himself assured me that the decoy Shrikes become so tame, after being used for a few weeks at the nets, that it would be of little service to keep them for another season. He told me likewise that it was a matter of some trouble to catch the Shrikes in the early autumn, even with the adjunct of birdlime. The present Mr. Molten writes to me, "The first Shrike we catch without another bird, but the first caught is used to get the others."

Belon tells us that in his day the French birdcatchers applied the sobriquet of "*La blanche*" to the Great Grey Shrike. Its ordinary name in France even then was "*La Pie-grièche*." The French employed Shrikes to hawk little birds for their amusement in the sixteenth century. Turner was informed that boys often roared Shrikes from their nests, with the intention of training them like Hawks. He shows that this was an amusement sanctioned by the example of the King of France: "*Audis Franciscum Galliarum regem, cucursum habuisse lanum, eoq; ad manum redeunte occupari solitum.*" Similarly, Louis XIII. used to hawk little birds with Great Grey Shrikes in the plantations of the Tuileries. He caused fine silk nets, of the kind known as "*l'araignée*," to be stretched between the shrubberies, to prevent the Woodpeckers and other little birds from eluding the pursuit of his trained "*Pie-grièches*." Audot and the "*Solitaire Inventiv*" independently assure us that the Great Grey Shrike is easily attracted to the birdlimed tree used in the "*Pipée*." "If *Pipées*," says the former, "are made in the woods in which these birds are numerous, a great number of Jays and Grey Shrikes can be secured, for these birds are very eager to fall into the trap." Similarly, Mr. Hartert tells me that the Great Grey Shrike, which is generally called the "*Raubwürger*" in Germany, shows a keen curiosity in the "*Kriehen-hütte*." Gesner says that in his time this Shrike was known in some parts of Germany as the "*Thorntrier*" or "*Thornkreutzer*," a name signifying the Thorn-shrike, suggested, doubtless, by its habit of impaling its

prey on thorns. In Westphalia, Hesse, and Thuringia it was called the "Nuntoder" or "Nunntoder," in the belief that a bird of this species required to kill nine birds for its subsistence in a single day. Englishmen of the sixteenth century had very little knowledge of Shrikes. Turner found a few of his countrymen who already recognised the Great Grey Butcherbird by its modern title of Shrike ("quod Angli etiam *shricus* nominant"). Charleton referred to it as "the Butcher or Adde-bird, because in colour resembling the Adde." It remains to add that both the Great Grey Shrike and the Redbacked Shrike are occasionally captured when attacking the decay-birds of professional birdcatchers. Bailly notices that this fate befalls the Great Grey Shrike in Savoy, where it is thus secured in the clap-nets. I have received more than one Grey Shrike from English birdcatchers. The most delightful of the number was a beautiful male, which was sent to me from Dover in January 1892. He was timid at first, but my attentions soon disarmed his fears, and he became very familiar. He took great pride in preening his dainty grey feathers, carefully passing each plume separately through the mandibles. He was disposed to try to bait the mice (*Mus musculus*) given to him for food. He would seize a dead mouse and swallow it head first with a series of gulps, amid much choking; he looked delightfully solemn when endeavouring to dispose of a whole mouse. The tail baffled his ingenuity, for he could not get it down at once, but was obliged to sit on his perch, with the extremity hanging out, until he could find room for it in his gullet. I generally induced him to impale his food and tear it to pieces. It is a great misfortune that Englishmen nearly always shoot this Shrike at sight, for it destroys an immense number of mice.

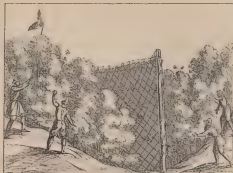
The Waxwing (*Boshyella garrula*) has long been known in Central Europe as a winter visitor from more boreal regions. Gesner records the irruption of numerous droves of this species into the country between Bingen and Mayence, in the neighbourhood of the Rhine, in the year 1552, adding that these birds were captured in many places near Mayence and used as food. Ahrovanus relates that flocks of Waxwings appeared in Italy in the year 1571, when as many as thirty and forty birds were taken at the same time in the vicinity of Piacenza and Modena. Bailly refers to such immigrations reappearing in Savoy, as, for example, in November 1816, and again in October and November 1833. On these occasions the bands of "Jaseurs" were so fearless that quantities were

shot and felled with stones. The mountaineers, who had never before seen such birds, were eager to secure them alive. They set snares ("Piéges") to catch the rare visitors, especially horsehair noses ("Lacets"), baited with grapes and other fruit. I have never obtained satisfactory proof of Waxwings being taken alive in England. On one occasion a couple of Waxwings were offered to me which were stated to have been taken in Chap-nets near London. But though many of us bird-lovers have kept this interesting bird in captivity and thus learnt something of its habits, the market supply of live Waxwings reaches us from Russia. The Thrush-catchers of Germany and Scandinavia capture the Waxwing in snares ("Ischnen") which they bait with service berries. Stuffed specimens reach Lendenhall in the flesh from time to time.

Bechstein indicates the month of February as being the most suitable for setting snares for Waxwings, provided that the snares are baited with the berries of the service-tree. Gleersen affirms, in his essay on "Snaring Thrushes in Norway," that the Waxwing is often taken in the snares intended for the destruction of the different species of *Turdidae*. Biesiekierski informs me that the Waxwing is frequently snared in Poland by means of the springs which the peasants employ for procuring Fieldfares. The Russians catch both Waxwings and Thrushes by means of open nets of the Pantière type. These nets are used in different ways according to local circumstances. The fowler sometimes plants a long strip of ground with trees and bushes to form a shrubbery measuring about one hundred and forty yards in length and seventy feet or more in breadth. The trees selected to make the fowling garden are chiefly those which bear berries which are likely to attract the presence of Thrushes, Waxwings, and other frugivorous birds. The mountain ash, elder, bird cherry, and juniper all serve the same purpose. An open space, about seven feet in breadth, is left in the centre of the plantation. Two long upright poles are fixed in the ground, one on each side of the opening. These poles are secured by being planted in the ground, and are furnished with cross-pieces. These last serve to bear the lines of a net, which is thus extended across the passage. Similar nets are placed on each side of the passage. The nets are worked by pulleys attached to the lines which support the nets. They are thus elevated or lowered at the pleasure of their owner. The manipulation of driving the birds into the nets requires the co-operation of two men. The birds are first allowed to enter the plantation and glit

themselves on the berries. As soon as the fowlers (who have concealed passages in the shrubberies, from which they can watch the birds unobserved) have satisfied themselves that the birds have settled down, they separately wend their way, at first with caution, towards the centre of that plantation to which the birds have resorted in the greatest numbers. Taking up two boxes of fine earth, which are kept in readiness on the spot, the men proceed to cast handfuls of soil into the air, taking care to produce the impression that it drops upon the trees from above. The birds are thus deluded into mistaking the sand for drops of rain. They settle lower down in the trees, and only fly from bough to bough in front of the slowly advancing fowlers. In this deliberate fashion the Waxwings are driven within a short distance of the nets. It is then that the critical moment arrives. The fowlers now quicken their pace, throw sand more frequently, and, shouting loudly, do their utmost to scare the birds right into the bosom of the nets, which are standing ready to intercept their flight as they dart across the apparent line of escape. When one side of the plantation has been driven in the manner just described, the fowlers proceed to the other end of their ground, and in due course beat the bushes on that side in the same manner as before, with similar results. These details are slightly condensed from *The Sportsman's Book for Capturing Animals and Birds*.





CHAPTER X.—THRUSH-SNARING.

THE THRUSHES of Europe (*Turdidae*) have gratified the palates of epicures since the days of remote antiquity. Readers of the *Odyssey* will recall a fine passage in which Telemachus is represented as executing his father's vengeance upon the maids who had proved unfaithful to Penelope:—

“As doves or long-winged Thrushes on a net
Strike in a thick bush, when to bed they get,
And find ill-roosting where they nightly throng,
So were their heads caught, and the nooses set
Fast round their necks to make their misery strong,
And with their feet they writhed a little while, not long.”

(*Wardley's Translation of the Odyssey*, Vol. II, p. 243).

Another interesting reference to the fact that the Greeks were in the habit of snaring Thrushes is supplied by the pastoral tale of *Daphnis and Chloe*. It is supposed that Longus composed this idyll in the fourth or fifth century. The scene of the adventures of the shepherd and his beloved one is laid, as many people will remember, in the island of

Lesbos. That particular stage of the courtship which always delights me arrives when a spell of severe weather divides the lovers. Daphnis finds it impossible to live without seeing the object of his affection. Accordingly he decides to terminate his sleepless misery by paying a surprise visit to the neighbourhood of Chloe's home. An excuse for the adventure is suggested by the fact that two large myrtles are growing in front of the cottage of Dryas, the maiden's adopted father. Many birds resort to the spot in search of the berries which hang in clusters from the bushes. Daphnis provides provisions and a supply of snares and birdlime. Thus accoutred the love-stricken swain struggles through the snow to the fowling-bushes, upon which he eventually sets the snares which he has brought with him. Long twigs are also smeared with birdlime and cunningly arranged. Daphnis finds no difficulty in catching as many birds as he pleases, but the coy shepherdess whose graces have inflamed the youth's passion remains discreetly at home. Daphnis tries to invent an excuse for calling at the dwelling-house; but the bashful rustic fears that his designs will be easily seen through. At last a happy accident sets his apprehension at rest. The farmer runs out of the house in pursuit of a dog which has stolen his master's dinner. In chasing the perçant quadruped, the goodman runs across the amorous fowler. The visitor is at once taken into the house and subjected to the playful satire of pretty Chloe, who is delighted to find a safe opportunity for teasing her devoted admirer. The gloaming is passed by the fireside. After breakfast on the morrow, Daphnis introduces his mistress to the pleasant amusement of catching the plump Thrushes and other song-birds. I suppose that the "moral" of this charming tale must be that mothers should beware of the wicked designs of love-lorn birdcatchers. The practical worth of the allusion lies in the fact that Longus considered this fowling episode so natural an incident of the homely life of Greek peasants, that he did not scruple to embody the idea in his tale of Arcadian happiness. Horace, the friend of our youth, depicts the good luck of the easy-going sportsman who fixes his nets,

"turdis edocibet dolos."

His country-fellow of a later day invents a sonnet, which Rosetti sets to music of his own:—

"I am caught like any Thrush the nets surprise."

The fact is, that no one can visit the markets of Italy in late autumn without being confronted with immense numbers of the Thrush family. The species which I found most plentiful upon the stalls of the poultrymen at Milan and Florence was the Song Thrush (*Turdus merula*). Italians distinguish this bird as the "Tordo bottaccio," "Tordo comune," or plain "Tordo." The caterers who contracted for the kitchens of rich men in the days of the Roman Empire made an extensive business of keeping Thrushes. Some of their number contrived to make a handsome profit out of their speculation in fresh-caught "Tordi." A single Thrush-mew was known to fatten five thousand thrushes in a season. The birds fetched as much as three denarii apiece. Crumming newly-caught Thrushes really paid a better profit on capital than cultivating a good farm. The birds were confined in a dark room, and encouraged to gorge themselves until their bodies became loaded with fat. The birds now retailed in the chief cities of Italy are captured in a variety of ways. A large proportion of the market supply is obtained by the peasants. These men set snares for the "Tordi" in those situations which the birds are expected to visit in the course of their autumn journeys through the woods and thickets of the country districts. Savi acquaints us with the *modus operandi* of the fowlers who ply their calling among the groves and copses of the Maremma. These individuals confer the title of "Penere" upon an arrangement of four snares placed on a rod of horsetail. The nooses in question are kept in the desired position by means of two small sticks called the "Stagette." The trap is secured to the twig upon which the wild bird is expected to alight in such a way that it stands up at right angles to the branch. "Raleo" is the name the fowlers give to this perch; it may be a branch of the identical bush that is chosen as suitable for the snare, or it may be an artificial substitute. The woods in which the fowlers set the snares consist of myrtle, juniper, arbutus, and such other trees as Thrushes and Blackbirds (*Merula nigra*) usually resort to in search of food. A great many of the inhabitants of the Maremma make "Merlù," as they call the snare of which the "Penere" forms part. The peasants of the Apennines also find employment in catching these birds. Each fowler, technically dubbed a "Merlajo," chooses a certain stretch of woodland for his fowling operations. All his time is devoted to setting his snares and keeping them in repair during the passage of Thrushes. Many of the woods of the Maremma are so thick that it is

impossible to penetrate them without crawling *ad ventem* over the ground, following the small paths which the wild animals have tracked out exposed all the time to be torn with thorns. It is therefore necessary that the fowler should commence his work by cutting his path with his pruning-saw. He must be clad in such a way as to defy the thorns and prickles. The "Merlapo" wears strong woollen stockings which cover the knee. A thick cloth apron, or a goatskin to which the hair still adheres, is fastened round the neck in such a way that it falls below the knee, protecting the chest and thighs. This garment is provided with a slit at the lower extremity to allow the limbs full liberty of movement. The knife which the "Merlapo" uses to cut his way through dense cover is suspended by a thong of leather, so that it hangs behind him. A canvass bag rests against his right side.

This satchel contains a supply of fresh snares, which the fowler utilizes to replace those which are broken or worn out. On the left side of the fowler hangs a bunch of berries, intended as a means of enticing the birds to venture within reach of the snares. A single fowler generally attends to about three thousand snares. He disposes of his birds to middlemen, who make it their business to collect the produce and convey the birds to the neighbouring cities. The British Vice-Consul of Terranova assures me that immense quantities of Thrushes are annually snared in Sardinia. The number of birds thus taken varies in different years, depending partly upon the relative abundance or scarcity of olives and other fruit. The birds are captured between the end of October and February. It is customary in the province of Cagliari to pickle the Thrushes in a strong solution of salt, into which myrtle-leaves are thrown. The birds thus acquire a delicate flavour, and fetch a high price in consequence.

When I visited the Don Carlos district of Navarre the peasants showed me a little frame of three pieces of wood, held together by a connecting wire: from this last hung the snares, intended to hold any bird that tried to swallow the berries which formed the bait. I have reason to think that similar snares are employed in the forests of Southern Spain. In certain parts of France the peasants are clever in trapping Thrushes in snares, some of their engines being almost identical in form with those used in other parts of the Continent. The French give the name of "Volant" to the frame to which the Thrush-snares are

tion. In Lorraine the country folk use a single switch as the frame to bear the snare. They make two incisions or slits in the branch of a tree. They insert into these openings the two ends of a switch, the latter being thus held in the form of a semicircular bow. Both the running mouse and a bunch of grapes or other berries are suspended from the upper part of the "Collet pendu" (as this trap is termed in common with the other snarest. It is in the fall of the year that *Jacques Soudouane* interests himself in snaring any fat "Grives" that happen to visit his garden or vineyard. A very large proportion of the "Grives" sold in the Paris markets are imported into France from other countries.

The "Soudaine Inventiv" lays stress upon the predilection which the "Traye" or Mistle-thrush displays for the berries of the mistletoe. The



OLD FRENCH SNARE FOR MISTLE-THRUSH.

French peasant takes advantage of the avidity with which this large thrush devours the fruit in question to set snares for its destruction. A series of horsehair nooses are arranged around a circular hoop of green wood. The hoop is suspended by five strings, in the same way as a hanging lamp might be, secured to some branch which just overhangs the viscous berries. The fowler climbs up into a tree which bears a spray of

misletoe, and arranges his trap in a likely place. The running snares stand out at different angles from the heap which bears them, in order to ensure as far as possible the success of the device.

We must not forget that Belon alludes to numbers of Redbreasts and other small birds being snared in the forest of Ardennes. My friend Mr Benson informs me that great numbers of birds, principally Song Thrushes, are snared in autumn in the vicinity of Spa. I have not succeeded in procuring fresh details of "La Tenderie," as this Thrush-catching is called; I therefore reproduce some of the information upon this subject which Mr Box contributed to the second volume of Gould's *Birds of Great Britain*. Mr Box states that many families of Liege, Luxemburg, Limburg, Namur, with those of parts of Hainault and Brabant, devote themselves to snaring Thrushes. Each family which engages in this industry prepares the snares for Thrush-catching during the leisure of the winter months. One such party will make ready from five to ten thousand horsehair nooses, and numerous pieces of wood rather thicker than a swan's quill, on which to hang the snares. Some of the traps appear to be identical in form with the "Vedam" which I described as used in Lorraine, the noose being suspended within the semicircle formed by the twig which is fixed by both ends into a branch. Another and distinct form of the "Collet pendu" is supplied by securing a switch in the form of the numeral six. The tail of the "six" is inserted into a slit in a bough of a tree, the noose and the mountain ash berries, which form the bait, are placed within the body of the numeral. The demand for the berries of the mountain ash is so brisk that the wild fruit is sold for five francs a bushel, and has even reached the famine figure of £2 per bushel. The fowler does not set his snares at random. On the contrary, he hires what he calls his "Tenderie" for the special purpose of setting snares within its limits. The "Tenderie" consists of four or five acres of underwood, from three to five years old. The rent paid for this privilege amounts to about thirty shillings. The same spot is used by one man in successive years. As many as one hundred and fifty birds have been captured in one "Tenderie" in a single day. The fowlers prefer foggy weather for the purpose of their craft, because, in thick weather, birds settle quietly in a copse instead of wandering about. The birds fetch from 5d. to 11d. per dozen. Snaring is now illegal in Denmark; but Mr Hagerup informs me that, until it

was prohibited by law, his fellow-countrymen used to snare many Thrushes on the autumn migration. The form of "Dones," or snare which Mr Hagerup has kindly sketched for me is that known in Norway as the "Hængedoner." It is made by cutting a forked branch of birch or other wood (Mr Hagerup says that willow was generally used). The extremities of the fork are pressed back and bound together to form the base of a triangle, or that portion of the trap on which the wild bird is expected to alight in order to feed upon the rowan berries. Mr Hagerup informs me that it was usual to hang these "Dones" in the trees at a height above the ground of about six feet. I understand from my friend John Young, F.Z.S., that he saw such snares on the island of Texel. In that instance the snares had been left hanging for some months. Mr Young found that an unlucky cuckoo had been accidentally strangled in one of the nooses.



NORWEGIAN THRUSH-SNARE.

The custom of snaring birds is adopted very largely in some parts of Scandinavia. Professor Collett has kindly drawn my attention to an essay on the subject in the *Dyrdie i Norge* of Mr K. Gløkken. This author distinguishes between "Stådoner" or standing snares, and "Hængedoner" or hanging snares. The latter are what the French would call "collets pendus," in other words, they hang freely in the air like those used in Belgium. The juniper is commonly used to make the standing snare, the two ends of a switch being inserted into the side of a tree. The slip-knots are suspended from the top of the trap in the case of the "Stådoner," but are fastened to the sides of the "Hængedoner." The best kind of a wood for snaring Thrushes is one in which evergreens are mixed with larger timber. Thickets of young pines, juniper, and birch are considered suitable places for snare-setting. In the autumn or early winter, when flocks of hungry Thrushes are searching eagerly for wild berries, almost any copse or large garden near the villages will answer

for fowling, but the snares have to be set with skill. Dummy snares are sometimes set above the rows of real traps to delude the birds, into imagining that no deception is intended. The service or rowan berries are hung low in the trap, in order that the Thrush may be compelled to put its neck into the snare in the act of craving after the coveted food. When the season of fowling has expired the "Hangslover" must be removed and hoisted at home. The "Stådoner," being made of juniper, stands the exposure of winter. It is left by the Norwegian trapper in the same position as long as required.

The snaring of Thrushes is an important industry in Russia and



Polish Springe

Poland. The Fieldfare (*Turdus pilaris*) is caught in the largest numbers. Mr Jules Biesickierski writes to me that a large sandy waste, in the neighbourhood of the town of Skierniewice, in the kingdom of Poland, is a special rendezvous of birds of the Thrush family, in consequence of the abundance of juniper. The berries of that plant are ripe in October, in which month the birds begin to assemble. The peasants of the district find the trapping of the Fieldfares and Missel-Thrushes (*Turdus viscivorus*) highly remunerative. The form of trap which the Polish fowler uses is not a simple snare, but rather what we should call a "Springe." Each trap invariably consists of an elastic and flexible switch one and a-half metres long. A small hole is bored with a gimlet through the twig. A loop made of two horse-hairs twisted together is attached, the loop being knotted. The loop

and the knot are passed through the hole, after which the peg (which is

sharpened at the end is lightly inserted into the hole. By this arrangement the knot is kept in its place, and the switch is prevented from losing its tension. The loop or snare is laid upon the peg. A bunch of service berries is inserted in a split made at the thick top end of the switch. When the fowler begins to fix the snare, he forces the bunch into the ground by the side of a juniper bush; the snare is then ready for action. The bird, seeing its favourite fruit, alights on the peg which falls from under its feet and sets free the knot. The switch suddenly straightens out and draws the loop tight thus securing the feet of the Thrush within the noose. The fowler sets about fifty such snares upon a score of acres, and spends his time in visiting them at proper intervals. Mr G. N. Douglass informs us that the Kielce government is rich in Fieldfares. Great numbers are caught both in nets and in snares. The entire export of these birds is in the hands of one Jew, who has a contract with the peasants to pay them three copecks apiece for each bird. These snared birds are conveyed for sale to the market of Warsaw.

The Germans have long practised snaring Thrushes on an extensive scale. They employ hanging snares ("Dohnen") similar to those used in Norway. The harschar nooses are termed "Schlingen," and are attached to wooden frames of the kind familiar to us. Mr Douglass has drawn my attention to two little articles on this subject, published in the *Zoologische Anzeiger* (XXXVI-Jahrgang, Nos. 6 and 7, pp. 178-182 and pp. 206-207). Von Dr Med. Carl R. Hennicke comments on a previous protest against the snaring of small birds in the Rhine Provinces. He asserts that the statement was, in his opinion, of a needlessly alarmist character. No doubt thousands of birds, principally Song Thrushes, are snared in Western Germany for the Paris market, the destruction being wrought by foresters. "But then," says Hennicke, "this catching has been practised already for centuries, and still the Thrushes are not likely to become extinct." He proceeds to quote the statistics furnished in two small MS. volumes, which supply notes of all the game killed in a certain district between 1611 and 1632. The small birds were netted, caught with birdlime, or strangled in snares set in the "Gestell" or frame. Redwings figure most numerously. No fewer than 7409 individuals of this species were secured between 1611 and 1632. In 1615 the number of Redwings killed in this district was only 58. On the other hand, no less than 948 birds perished in 1611, and 932 birds were

obtained in 1614. The score continued to rise and fall in different years, and reached the high score of 775 birds in 1631. The numbers of the "Zeuner" or Fieldfare never assumed a proportion comparable to those of the Redwing. The greatest number of Fieldfares killed in any one year was 395 in 1631. But this had seemed at times to escape the bushcatchers altogether, for only 3 individuals are returned in 1615. The grand total of Fieldfares slain in the whole period was 1810. The "Schauerer" or Missel-Thrush contributed very little to the amusement of the fowlers. The largest number taken in a season was only 32, and the total number amounted to 185. The "Zipfen" or Song Thrush fared ill, as might be expected. The grand total of these birds killed was 5254; but as few as 19 were taken in 1613, and none in 1618. The last haul of Song Thrushes was made in 1630, when 611 birds perished. Of the "Amisch" or Blackbird only 216 were taken in the whole period, and only two "Rein-Amisch" or Ring Ouzel. The remainder of the score was made up by 744 Bullfinches, 52 Common Redstarts, 54 Yellow Buntings, 155 Chaffinches, 3 Goldfinches, 42 Greenfinches, 3 Bullfinches, 9 Sparrows, 2674 Skylarks, 1 Woodcock, 1659 Pinnas (of which the extraordinary number of 999 birds were all taken in 1625), 3 Woodpeckers, 14 Waxwings (entered as "Schönswente"), 8 Starlings, 51 Jays, and a few sundries. Von Schunkling Prätor tells us that it is still lawful to net the "Wachholder" or Fieldfare in the "Vogelheid" from the 15th of October to the 31st of December in Germany (he does not specify any particular area). The use of Hanging-snares ("Dohnenstiege"), Ground-snares ("Laufholzen"), Lark-nets, and Lark-mirrors has long been regulated by law in Germany. The "Sangdrossel" or Song Thrush and the "Misteldrossel" or Missel-Thrush are now partially protected, at any rate in the Rhine Provinces. Dr Liebe explains that these birds are intended to enjoy a need of protection denied to the Redwing and Fieldfare, because the former are resident and breeding species. Nevertheless, he says, they are in as much danger of being taken in the snares ("Dohnenstiege") as the other Thrushes. "It is certainly true that the capture with the fixed nooses ("Dohnenstiege") is an ancient and practised right of the Game Proprietors, and that it is looked upon, though only in isolated districts, as a small portion of the income of forest sub-officials. On the other hand, it is not to be overlooked when speaking of "Krammetavogeln" from the sportsman's point of view, that

under this title all kinds of Thrushes are understood, and divided into 'whole' and 'half' birds when they fasten them together into 'Kloppen' (clunches). The 'Krammetsvogel'" he continues, "are caught in the snares ('Schlingen') of the Frames ('Dolmenstiege') by the neck, and are often only choked after fluttering for a quarter of an hour; or, again, are caught by the wing or leg, whereby they are almost always so injured that they cannot live. Apart from the altogether unsportsmanlike cruelty of this method, it is to be noted that its pursuance ends fatally for the birds, which are expressly protected. Statistics prove that the great majority of 'Krammetsvogel' caught, and also brought to market, is composed of Song Thrushes, and also that Blackbirds and Missel Thrushes are strongly represented."

[The headpiece to this chapter is reproduced from Di Valli's plate. It represents a party of Italian fowlers driving Thrushes and other small birds into a perpendicular net ("Ragna"). One of the fowlers is depicted as employing an artificial kite. The tailpiece illustrates the "Drosselhard" described in the following chapter.]





CHAPTER XL—THRUSH-NETTING.

THE Teutonic weakness for the flesh of the coveted "Krammetsvogel" is a curious survival from the usages of the Middle Ages. Hieronimus wrote in 1537 that these birds were even then held in high esteem by his countrymen. "In Germania autem maxime hyeme capiuntur," he observes, adding "Coquantur integri, nam et intestina simul eduntur. . . . Ingluviem plenam habent baccis Juniperi" (*De Rusticis*, p. 298). The flavour of the juniper was no doubt a pleasant contrast to black sausages or Saure Krauter. William Turner alludes to the fact in his work *A New Herbal*, published in 1551, remarking of the juniper that "it groweth in Germany in many places in greate plentye, but in no place in greater than a lytle from Bon, where as at the tyme of year the feldfares fede only of Junipers berries, the people cate the feldfares undrawn with guttes and all because they are full of the berries of Juniper." The most popular plan of securing these birds was

that identical with the "Drosselherd" or "Krammetsvogelherd." This engine is a form of Clap-net. It occupies a permanent base or fowling-floor, usually situated in the middle of the woods. The ground plan of the "Drosselherd" given by Rehm furnishes a bird's-eye view of the pair of nets, which lie in folds around the sides of the "Strauch" or Fowling-floor. The size of the nets has always varied. The Fowling-floor described by Rehm is a large one, intended for taking Thrushes. It measures twenty-seven feet in length, independent of the "Zipfel" or pointed Tips, which extend to a further distance of fourteen feet. The nets are made of strong material, that they may be weather-proof. They are usually green in colour, to deceive the eye of the birds. As the nets, when they close over the Floor, lie in loose folds, they of necessity form what is called a "Bosom" of considerable extent. It follows that when the nets lie over the Floor, they have only a length of twenty-five feet and a breadth of fourteen feet. The remainder of the netting forms the bosom. The Tips are intended to form an empty space, into which the birds can be driven. The nets are mounted on staves like ordinary Clap-nets; but the staves of the Fowling-floor are called the "Larvenstoecke." These measure five feet in length, and are fixed on the ground by the arrangement called the "Larvenstoecke." The "Larvenstoecke" are the claws of the Staves, and are four in number. They are placed in the middle of the Floor. Each staff has its lower extremity fixed in the claw of the "Larvenstoecke" by an iron pin, which permits the staff to move freely. The tops of the staves are secured to the four corners of the nets by iron rings, and are worked by lines on the principle of the Clap-nets. But since the German nets are so ponderous, it is desirable to have resort to some additional machinery to furnish the force necessary to pull the nets rapidly over the Fowling-floor. Hence the German fowler provides two immense Tension-poles. These beams are termed the "Spannreithel," "Spannholzer," or "Schlagbaum;" and are made of elastic pine-wood or beech-wood. These beams lie on the ground between the nets and the Fowling-but. They are pinned in the right position by posts which are driven firmly into the ground. The beams in the Floor now described measure thirty-four feet in length, and their thick ends lie flat on the earth, while their free extremities rise to a height of sixteen inches from the ground. The space covered by the Floor is technically termed the "Herd" or "Strauch." This is a kind of wooden platform, measuring

twenty-four feet in length by eleven feet in breadth. The frame is built in the form of an arch, standing two feet four inches in the centre and twelve inches or fourteen inches at each side. The fowler sits in his hut and pulls the nets over the Flan by means of a central pull-rod, the force to reverse the Staves, which bear the nets with them, being supplied by the Tension-beams. The lines which draw the nets together pass through the upper meshes of the nets, and terminate in the central pull-rod. They are, of course, quite independent of the lines attached to the Tension beams, which connect the latter with the upper ends of the Staves or 'Larvenstrecken'. The success of the tocher depends largely on a supply of aged mall-birds of the species which he purposes to catch. Bechm gives a table of the number of *Turdide* caught in the year 1824. The Redwing supplied the chief harvest of Krammetsvogel. Of this species no fewer than 625 birds were captured, as compared with 233 Fieldfares, 87 Song Thrushes, 9 Missel Thrushes, and a solitary Blackbird. The netting commenced on the 1st of October and terminated on the 2nd of December. Most of the Redwings were taken in October, only 60 of these birds being taken after that month closed. On the other hand, only 74 Fieldfares were secured in October, as contrasted with 159 birds caught after the commencement of November.

The greatest number of Redwings taken in a single day in October was 119, this being the largest individual catch of the season. The number of Song Thrushes caught in a single day was 14, and the 87 birds of this species returned were all taken in October. Bechm likewise furnishes the figures of the 'Krammetsvogel,' taken on a good 'Vogelherd' during thirteen seasons, viz. between 1819 and 1833, excluding the years 1824 and 1825, for which the returns were presumably lost. In the whole period of thirteen seasons a grand total of 7222 birds were taken. This number consisted of 5196 Redwings, 1010 Fieldfares, 1028 Song Thrushes, 66 Missel Thrushes, and 22 Blackbirds. The highest return was made in 1826, when 978 birds were taken, but this was accounted for by the capture of no fewer than 787 Redwings and 114 Song Thrushes. The poorest of thirteen years was 1832, when only 203 Redwings succumbed to the craft of the fowler. The initiative cost of a 'Vogelherd' is reckoned by Bechm as varying from thirty to fifty thalers. Herr Berstel tells me that, when he was a boy, the birds caught in the 'Drosselherd' used to be hawked

about in bunches through the streets of his native town of Dusseldorf. Another method of supplying the market with birds of this family is to be found in the "Drosselgasse." Herr Gaetke assures us that the item of "Throesel-supp" is an important feature in the menu of the Heligoland housewife, who consigns every kind of bird to the stew-pot. "All the Thrushes," he writes, "are caught here in nets. The means of allurement, singular as it may appear, is formed by a few withered bushes planted in the ground. The following is the arrangement:—a space measuring about twenty feet in breadth and six or eight feet in depth is enclosed with bushes ten feet high, space being left for the Thrushes to run through the shrubs. On one of the long sides the bushes are set perpendicular, those of the opposite side being planted obliquely, inclining to the first. A strong net is stretched over the oblique side, reaching from the top of the bushes to within two feet of the ground, enclosing one side of the enclosure in a long semicircle; a second net, loosely suspended on a line, is hung by means of the latter round the lower portion of the same side a little above the lower edge of the first net, and like that forms a semicircle round the Thrush-bushes. Below, however, this net is spread loosely on the ground for a distance of about a fathom from the bottom of the bushes. In this way the depth of the whole arrangement is considerably increased. The bushes must be set up in such a way that the Thrushes can spy them at some distance, and so that they can fly freely towards the open side; if the fowler is able to employ living bushes the birds will be decoyed in a greater degree." (*Die Vogelwelt Helgolands*, p. 240). Gaetke adds that about a score of these "Drosselbusche" existed on Heligoland in 1890. It is not unusual for the Heligolander to obtain a couple of hundred birds in his Thrush-bush during a strong flight of flocks, but when the weather is less propitious he is satisfied to get from thirty to fifty birds. An old fowler, named Payens, once caught a thousand Song Thrushes in a day, but that was in October 1824, when the prevailing winds were more favourable.

The species principally taken on Heligoland is the Song Thrush, which the islanders dub the "Gru-Throesel" or Grey Thrush. Gaetke observes that the Thrushes which alight on Heligoland are sometimes taken with open, vertical nets, similar to those set to take Snipe, but of finer mesh. In Italy the employment of nets for taking Thrushes has

almost been reduced to a fine art. The simplest method is that of suspending a long perpendicular net at the side of a wood, into which the "Turk" are driven by beaters at sunrise and sunset. Count Cammaro Vertova showed me a net of this description on his property at Costa, near Bergamo. It sloped inwards from the beams of the posts to which it was attached. It was suspended between a row of stout upright posts, each of which carried a strong wire rod running outwards from the top. A crossbar was secured to the main post at an angle, to assist in bearing the weight of the net, which was secured to its supports by iron rings. This net was made of a mesh specially intended for the capture of Thrushes. It was therefore unsuitable for catching tiny birds. The net which I examined was a single long net; it also differed from the other nets which were shown to me, in the fact of its being suspended at a receding angle. It recalled Savi's description of the "Ragna," or Spider-net, which is set for many birds. But the "Ragna," which Savi declares to be of Florentine origin, is not a single net, but a triple net, and the outside meshes are large, and serve to make pockets to support the finer net which hangs between the two outer walls of net. The Thrush-net is set in a place which has been planted with the favourite bushes of the Thrush family.

The use of Thrush-nets is most common in the north of Italy, but it is not limited to any one region. Moretti states that the rich profusion of olive woods found in the plain of Calabria induces numerous Thrushes to choose this region as their winter quarters. The Song Thrushes annually make their appearance in millions, so that in certain seasons their presence is regarded as a calamity. Of late the numbers of these birds has undergone a vast diminution, which is ascribed to the havoc wrought in their numbers by the birdcatchers. The peasants of a village named Molochio, which is situated on the ridge of a hill near Reggio, is famous for its thrush-catchers. Every man in the hamlet keeps nets for catching Thrushes, and waits in the early morning to intercept the birds which are then descending from the hills to the plain. The fowlers stretch their nets across the mountain gorges and on the slopes of ravines. The owner of one of the "Passi," as the fowling stations are termed, makes money by letting a span of earth (which would be useless for any other purpose) to the fowler for its weight in gold (*Leipziger Italia*, Vol. III. p. 538). The Swiss mountaineers used

similar contrivances to catch the Thrushes migrating through their native passes as long ago as the sixteenth century. The fowlers of Zurich used in those days to net great quantities of Thrushes. Their method was to cast stones or other implements into the air with slings, by which means they induced the frightened Thrushes to dive down into fixed nets, which stood about six feet high.

This method, formerly used in the Alpine passes, seems to have borne some resemblance to that which is still carried out on an extensive scale in the north of Italy under the title of the "*Roccolo*." The precise form of this contrivance varies in different districts, and even in different situations in the same district. For example, Count Camozzi Vertova showed me two "*Roccoli*" on his property at Costa. The first of these was situated in the plain, and was an elaborate structure. The second was built on the crest of a low hill, and was of a simpler character. But the main idea of the "*Roccolo*," modified though it may be, and indeed is, presents no difficulty. It is a piece of ground surrounded by high walls of netting, and overlooked by a hut or house from which the fowler can see into the enclosure. The "*Roccolo*" is sometimes circular, as figured in the engraving reproduced here from the *Atten van Fogels*. The "*Roccolo*" of which Count Camozzi Vertova has favoured me with a ground plan consists of three high walls of netting. The fourth side of the enclosure is occupied by the fowler's house or watch-tower. The netting is stretched on lines between strong posts planted at regular distances in the ground. The two parallel sides of this "*Roccolo*" measure twenty metres each in length. The semicircle which forms the fourth side of the "*Roccolo*" measures a distance of forty metres. The inside length of this "*Roccolo*" is twenty-five metres. It is usual to leave a few trees standing in the centre of the "*Roccolo*"; but no trees or bushes are allowed to grow near the sides of the "*Roccolo*." The "*Roccoli*" which I inspected were furnished with triple walls of netting.

The walls of netting are forty feet in height, and made of one-inch netting. The walls of net sometimes slope inwards from the top of the "*Uccellanda*" to the ground. The sides of the "*Roccolo*" are in some cases left bare. In others the nets are suspended between an elaborate trellis-work, in which the cages of the decoy Thrushes and other birds are suspended. The fowler often occupies a comfortable two-steeped cottage,

but he may have to content himself with a lofty wooden hut, according to circumstances. His business is to rise long before dawn and hang out



PLAN OF ROCOLLO.

his caged Thrushes. These decoys call down any flocks of migrating birds which may happen to cross the line of the "Roccolo." The "Uccellanda" is always placed upon a well ascertained track of avian migration. The tined birds alight within the enclosure to rest and feed. The fowler watches their movements as soon as light arrives. When he sees any birds alight on the trees in the centre of the "Roccolo," he sends a wicker racket whizzing through the air, giving at the same moment a horrid yell. The birds are startled by this strange sound, and mistake the weapon which rushes through the still air for the attack of some bird of prey. Accordingly they dart away to escape the swoop of their imaginary enemy, only to be entangled in the meshes of the triple nets. The German print represents the "Rachette" as shaped like a Sparrowhawk. The racket figured here is one which I saw used in the "Roccolo" of Count Gabriel Camozzi Vertova. The capture of Thrushes is the principal feature of the working



WOOD RACKET.

of the "Roccolo." Many species of birds are caught in these "Uccellande" which are supplied with finely-meshed nets and a variety of decoys. But the Song Thrush and the Chaffinch are the two species which bulk most heavily in the returns of the "Roccolo." The former species is the most sought after. All the birds taken in the "Roccolo" are netted between the middle of September and the end of the year. A "Roccolo" used for

the "Bowler" has been known to take up to 100 birds in a single day. It is necessary to rise long before dawn to see the "Bowler" at work. The "Bowler" is a species of Thrasher. They are the "Bowler" of the "Bowler" which is the king of the "Bowler". The "Bowler" is placed upon a well-constructed nest of mud and sticks. The bird sits upon the nest and watches the movements of the birds which are flying about it. The bird is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird. The bird is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird. The bird is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird.

of the "Bowler". Many species of birds are caught by the "Bowler" which are supplied with daily-mashed food. The song Thrush and the Chaffinch are the most common birds caught by the "Bowler". The "Bowler" is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird. The bird is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird. The bird is very alert and will fly to the nest as soon as light arrives. When he sees any bird alight on the trees in the centre of the "Bowler" he will fly to the nest and seize the bird.

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taking Thrushes and other birds of relatively large size, such as Jays and Hawfinches, in the district of Canto and province of Como, between the years 1806 and 1835, when birds were more numerous than now, in the season of 1816 yielded no less a number of birds than 1128, of which 792 were Song Thrushes. In two different years the returns of Redwings reached the high figure of 127 birds, but the number of that species taken seldom rose above a score. The Fieldfare is not represented in the returns. Very few Mistle Thrushes were taken—never more than twelve in a season, and usually only one or two. The returns of a "Roccolo" worked at Brinzan, in the same province, between 1851 and 1885, yield figures proving that enormous quantities of Song Thrushes perished annually, the numbers varying from 238 in 1858, to 940 in 1865 and 927 in 1879. The Redwing was seldom taken in any abundance; but the exceptional number of 133 Redwings was secured in 1874. The chief passage of Song Thrushes takes place in October, while the Mistle Thrush, Redwing, and Fieldfare fall victims chiefly in November. The passage of birds over the Alps varies annually. The autumn of 1895 was remarkable for the very large number of Song Thrushes netted in the province of Bergamo. The most noteworthy returns from any single "Roccolo" are those which Brambilla supplied to Professor Gaglioli. These refer to a "Roccolo" in the neighbourhood of Castellanza, in the province of Milan, which has been in the possession of the Brambilla family for a century. The original "Uccellanda" or Fowling-station was founded in 1792, at which time the birds were taken by means of birdlime instead of in a netted enclosure. The use of birdlime was abandoned in 1808, when a "Roccolo" was constructed. The numbers of Tordi captured with birdlime prior to the establishment of the "Roccolo" varied from 64 Thrushes caught in 1796, to 464 Tordi caught in 1803, the latter being an exceptionally good season and the former an exceptionally poor one. After the "Roccolo" was brought into use a variety of birds were captured, and this continued until 1851, when the old "Roccolo" was transformed into a "Riviera-cannella," with a special net for capturing Thrushes. The use of birdlime for capturing Thrushes dates from a remote period. It is still carried on in some localities on the lines described by Savi as practised in Tuscany. The title of "Boschetto" is applied to an evergreen plantation composed of laurels, hedysminks arbutus, and other shrubs. These

bushes are kept down to the height of about five feet, and trimmed into cylindrical form. In the early morning, before the passage of the Thrushes has commenced, the birdcatcher conceals among the bushes a number of caged Thrushes. These birds have been kept in confinement all the previous summer.

The birdcatcher next places limed twigs on the tops of the bushes. He then retires to a little house built in the centre of the "Bosquette." The ground is intersected by four paths, each of which converges on the hut in the centre, so that the fowler commands a view of all that goes on. When the passage of birds begins, the wild Thrushes, flying over at a great height, hear their captive relatives calling in the bushes far below. Descending in answer to their invitation, the strange birds alight on the limed twigs which are placed on the summit of the evergreens. The birdlime adheres to their feet or wings, and the poor Thrushes drop to the ground, unable to fly away. The fowler draws the birds into his hut without being seen by means of a little lake or a long look. Bagnoux was well acquainted with this species of fowling. He dwells with obvious pleasure upon the proper position of the "Uccellanda," and draws a vivid picture of the enthusiastic fowler shivering at his post in the dawn of a frosty morning. Moreover, he expatiates on the value of good call-birds, warning the tyro that if any of the decoys gives a sharp alarm-note it must be killed, for it is a traitor, and intends to warn its free brethren to shun the wiles of the fowler. The delight of the fowler in making a good haul of Thrushes is described as culminating in his sending a message to Chloé, begging "ma Chère" to leave the city and join her fond admirer amid the joys of a rural environment. Tempesta seems to have shared in the erotic impressions of the old poet, for he frequently enlivens his pictures of fowling by representing a charming Signora as resting on the knee of some sporting gallant.

The employment of birdlime for capturing Thrushes obtains favour in the south of France, particularly in the neighbourhood of Marseilles. Joubert and Barthélemy-Lapommeraye devote several pages of the *Richesses Ornithologiques* to explaining the manner in which "La chasse aux Grives" is carried on in the Bouches-du-Rhône. The species obtained are Song Thrushes, with a smaller number of Mistle Thrushes or "Drennes," and Blackbirds. These authors calculate that no fewer than 326,000 birds are shot annually by the chasseurs, who occupy

8000 "Postes à feu," i.e., huts constructed of planks or in branches, situated on the lines of flight usually followed by migrating flocks of Thrushes. The shooting station is built facing a row of trees, and a framework of branches is raised within shot, known as the "Côneaux." The wild birds, lured down by the song of numerous caged birds of their own kind, alight on the "Côneaux" in the grey light of breaking day, only to expose themselves to the numerous fire of the concealed gunners. Independently of the heratons of "Cônes" which are slaughtered by the gunners, the peasants of the district are estimated to secure 24,000 birds alive, by means of birdlime. The birdcatcher plants a number of young trees in a favourable spot, taking care to arrange them at proper intervals from one another, placed in such a way as to form a sort of labyrinth around the "Cône" of the fowler which occupies the centre of the ground. Numerous limed twigs are placed transversely across the bushes. The wild birds stop to perch on the twigs, seduced by the "chiquerie" of the "Appelants" or decoys, and drop helpless on to the ground, where they are, of course, at the mercy of the fowler.

It should be noted that the Thrush-catchers reap their harvest near Marseilles during a period varying in extent from twenty to twenty-five days, that is to say, from the 21st of September to the 15th of October. The 21st of September, which is St. Matthew's Day, is reckoned to witness the arrival of the van of the migrating host, composed of Song Thrushes and Blackbirds. On the other hand, St. Theresa's Day, the 15th of October, is held to be the culminating point of the migration. After the latter day, the number of birds that pass sensibly decreases and by the end of October the birds have all disappeared.* The 21st of September is a memorable day in the calendar of the birdcatchers, who draw an augury of their approaching fortune from the dawn of the fateful morning. If the day breaks in splendid weather with a northerly wind, the fowling season will be highly successful. On the other hand, if the day breaks in sullen gloom, the sky is clouded, and the wind blows from the south, then the hopes of the peasants are dashed with the presentiment that their campaign against the "Grives" is doomed to be a comparative failure.

* The belief that a strong migration of Thrushes is sure to occur on "Santa Teresa" has passed into a proverb still current among the *Rousses* birdcatchers (*Sports Illustrés*, 1895, p. 688).

In concluding this essay upon Thrush-catching, it may not be out of place to remark that similar measures for capturing the *Tealake* are largely in vogue in Japan. Professor Ijima assures me that the Dusky Ouzel (*Melanerpes formicivorus*) is caught in large quantities during its migratory journeys. There are two principal methods for effecting its capture. The first is by the perpendicular "Kusamimets," extended in rows on the tops of the hills. Alternatively, the Japanese fowler employs an ingeniously poised twig which has previously been smeared with bird-lime. This trap is called the "Kera-hago." A small wooden base is provided, upon the centre of which is tied a live insect of the genus *Gryllus*. The limed bamboo is bent in arched form over the insect. It is so adjusted that when the bird pecks at the insect the limed twig instantly falls upon its back. The Ouzel is thus incapacitated for flight, and falls an easy prey to the birdcatcher.

[The headpiece of this chapter represents the enclosure of a circular "Raccolo." Contrary to the usual style now found in Italy, the nets are represented as separated from the fowler's house. The bird-rasket, shaped like a hawk, is shown as it passes from the fowler's window over the "Raccolo." The original engraving is to be found in *Art de la Chasse*, *Fig. 64*.]





CHAPTER XII.—CHATS AND REDBREASTS.

THE BLUE THRUSH (*Monticola cyaneus*), the "Pussaro solitario" of the Italians, is associated in the popular mind with the picturesque ruins among which, at any rate in Southern Europe, the rich notes are poured forth to the delight of the passer-by. It is justly prized as a cage-bird, but the specimens which I have kept or seen in confinement had invariably been reared from the nest by hand. Under such conditions the Blue Thrush loses much of its natural dread of human society, and manifests the most devoted affection towards its owner. A specimen which I bought at Milan on one occasion showed great timidity in travelling: but when once installed in its new home, and regaled on ripe

grapes and other favourite food, the "Passaro" soon learnt to fly about the shoulders of its owner, and speedily won everybody's regard. Gesner received a description of the difficulty experienced by the fowlers in taking the young of the Blue Thrush from his friend Raphael Sedanus. The hunters climbed into precipitous places to reach the nests of this species. The nestlings were carried home to be reared by hand. The males were subsequently sold for high prices or presented to men of rank; in such esteem was this bird held, even in the middle of the sixteenth century. De Valli figures the present species, which he says may be kept in captivity for eight or ten years. He devotes a separate paragraph to explaining how to capture the "*Passaro solitario*." The "*Maso di pagliaro*" is to carry a caged Blue Thrush to some spot which a wild individual of the same species has been noticed to frequent. The Blue Thrush is of a jealous disposition, and is likely to resent the arrival of a stranger. Lined twigs are placed around the cage of the deasy. When the free bird darts down on the imprisoned "*Passaro*," it is detained by the treacherous barbed line. In default of a caged Blue Thrush, the fowler is advised to employ a "*Uccetta*" or Little Owl to attract the Blue Thrush within reach. In this case four long lined twigs are arranged about the Owl. The "*Passaro*" endeavours to mob the Owl, and falls a victim to its impudence. Yunnan states that the Blue Thrush can be taken in the Clapnet, if a caged deasy of the same kind be set in the middle of the toils. The Rock Thrush (*Monticola saxatilis*) was known to Helon as frequenting the volcanic hills of Auvergne. He terms the bird the "*Prisee solitaire*," it is true, but his description of its colour renders it certain that his remarks referred to the present species. In his time it was greatly prized as a cage-bird in France. King Francis himself delighted in the possession of tame Rock Thrushes. Friderich tells us that this bird, which is well known in Germany as the "*Steindrossel*," is too shy and suspicious to permit of easy capture. The nestlings are usually brought up by hand. Such had been the case with the only two specimens that I have kept as pets. But a skilful fowler is sometimes able to capture adult Rock Thrushes by means of lined twigs or snares ("*Laufschlingen*"), provided that these are set in the haunts of the "*Steindrossel*." The Wheatears (*Saxicolinae*) offer little attraction to the fowler, with the notable exception of the Common Wheatear (*Saxicola arvensis*). The Italians are partial to the "*Culbimco*" as an addition to

the delicacies of the table. Many of these birds are, therefore, trapped and netted in the plains of Italy. Some fowlers take the "Cullianco" by means of snares ("Anchetti"). With others trap-nets ("Caldanco") are in greater favour. These engines are set in open country, or in the meadows which the Wheatears frequent when resting on migration. Savi tells us that the pleasantest and most remunerative sport is to be had with the "Civetta." The fowler who desires to go in search of Wheatears rises before sunrise, and furnishes himself with six or seven long bird-lined rods ("Pannoni"), together with a Little Owl. Thus accoutred, the Tuscan peasant wends his way to the spot in which he expects to find the "Cullianco." As soon as the darkness has become sufficiently dissipated to enable him to distinguish the surrounding country with clearness, he fixes the perch ("Grucce") of the Little Owl in the ground. The "Stake" is surrounded by the lined twigs, which are set in the earth slightly slanted and at a distance of five or six feet from the Owl. When this preliminary has been arranged, the fowler hides himself behind some bush or in a ditch. Thus concealed, he imitates the Owl to fly about, imitating at the same time the whistle, "coo, coo," which the Wheatears usually make. After the lapse of a few minutes, all the Wheatears which are sufficiently near to hear the call or to see the Owl hasten to the snare. They fly from one clod to another, anxiously desiring to obtain a better view of the strange bird. The Chats are thus induced to alight on the lined twigs, when their feet and wings become so smeared with the bird-line that they cannot keep their balance. Their weight detaches the twigs, which fall to the earth, when the birds become incapable of escape. Fresh contingents of "Cullianchi" speedily make their appearance, and fall victims to the same device as their predecessors. It is not surprising, therefore, that ten or twelve birds are often caught before the fowler has stirred from his post. This variety of fowling lasts from daybreak until about 9 A.M. The Germans generally capture the "Graue Steinwacker" or "Weisachwanz" in a similar manner to that of the Italians, only they discard the use of the Little Owl. They are contented to drive the Wheatears in the direction of the lined rods which have been placed in their expected line of flight. The English never seem to have taken any pains to trap Wheatears except upon the Sussex Downs. The bird was variously known to English fowlers as the "Clothard, Smatche, Arlyng, or Steinchek." Some of these sixteenth century names were familiar to

Willaghtly. He introduces this bird to his readers under the title of the "*Fallow-Snark, in Sussex, the Wheat-eat, because the first of Wheat-harvest they was ever fat; called by the Italians, Ovis Bianco, and by us also in some places, White-tail from the colour of its rump.*" He adds that "The *Scouse* Shepherds, to catch these Birds, use this Art. They dig long turves of earth, and lay them across the holes whensout they were digged, and about the middle of them hang snares made of horse-hair. The Birds, being naturally very timorous, if a Hawk happen to appear, or but a choud pass over and intercept the Sun-beams, hastily run to hide themselves in the holes under the Turves, and so are caught by the Neck in the snares."



Wheat-eat-snares (after Harting).

An interesting article, entitled "The Wheat-eat on the South Downs," appeared in the *Field* of July 28, 1894. The writer, Mr. J. E. Harting, furnished various details concerning the former capture of these birds. His remarks were illustrated with the sketch, here reproduced, of a Wheat-eat-trap which the late Mr. Bloomfield bought from a *Sussex* shepherd. "It will be seen," observes Mr. Harting, "that by inserting this contrivance in the opening which has been cut in the ground immediately under the turf which is laid across the hole thus made, a double horsehair snare is set in such a manner that a Wheat-eat passing under the sod cannot escape."

Mr. Deane quotes the following remarks from the mouth of a celebrated South Down shepherd, who tended his flocks near Brighton:—"The farm extending along the sea coast, I caught great numbers of Wheat-eats during the season for taking them, which lasts from the middle of July to the end of August. The most I ever caught in a day was thirteen dozen, but we thought it a good day if we caught three or four dozen. We sold them to a poulterer at Brighton, who took all we

could catch in a season at eightpence a dozen. From what I have heard from old shepherds, it cannot be doubted that they were caught in much greater numbers a century ago than of late. I have heard them speak of an immense number being taken in one day by a shepherd at East Dean, near Beachy Head. I think they said he took nearly a hundred dozen, so many that they could not thread them on crow-quills, in the usual manner, but he took off his round frock and made a sack of it to put them into, and his wife did the same with her petticoat. This must have happened when there was a great flight. Then numbers are now so decreased that some shepherds do not set up any coops, as it does not pay for the trouble." Charles II. was exceedingly fond of Wheatears. He was once entertained at a dinner given by the Earl of Dorset, when no fewer than twenty dozen of these birds were eaten by the company. But it is not only in England that the Wheatear enjoyed a high reputation as a *gàste*. Herr Gaetke assures us (*Die Vogelwarte Helgoland*, p. 337) that great numbers of the "Ohlen," as the islanders dub the bird, visit the Helgoland on their autumnal migration. Many immature birds are taken to supply delicacies for the holiday-makers.

The capture of the birds is effected by means of a simple clap-net ("eines einsachen Zagnetzes"). These birds like to perch on the small elevations to be found on the upper edge of the cliffs. The fowler therefore heaps up a hillock in that part of the island, measuring about five feet in length and raised to a height of eight or nine inches. The net is laid parallel to the artificial mound of earth, and is so arranged that it can be drawn over the hillock when the fowler jerks the pull-cord. Formerly the net used to be pulled every time that a Chat settled on the projection, but the fowlers have latterly baited the fowling-floor with ants, which readily attract a number of birds, so that several may be taken at a single pull of the net. The Tuscan bird-catchers are likewise in the habit of baiting their traps with ants. Gaetke estimates that a single fowler can net about a hundred Wheatears during a strong migration of these birds. As many as two hundred individuals have been secured, under exceptional circumstances. Chats are sometimes taken with the Arab Nightingale trap, mentioned in the next chapter. Mr Aplin tells me that he purchased a male Black-throated Chat (*Saxicola melanoleuca*) at Gafsa, which had been obtained

by means of this engine. The Whinchat (*Pentacola caletus*) is little sought after by English birdcatchers. An old Carlisle birdcatcher named Walton, now deceased, was clever at procuring living specimens of this bird. He was accustomed to drive the "Plick," as it is called in the north of England, up to the lined twigs which he had previously arranged in conspicuous prominence on the hedges. The same plan of securing the "Baunkochlen" is adopted in Germany. The Germans are also adepts at catching this Chat in gardens by means of springes ("Sprenkeln"). The springes are planted in the ground among the cabbages. The farmers then gently urge the birds which they desire to take in the direction of the traps. When the Chats alight on the perches displayed in tempting situations, they find their poor little feet entangled in the horsehair snares.

The Common Redstart (*Merula phoeniceus*) and the Black Redstart (*Merula tyto*) are both trapped and snared for the Italian markets in the autumn, when these birds are usually "grossissima e buonissima per mangiarsi," as Sam observes. I have had occasion to trap both adults and nestlings of the Black Redstart. It is easy to take them alive with an ordinary Nightingale trap. In Avignon I trapped a male belonging to a breed which frequented a stone wall. I repeated the experiment in a garden at Montreux with the same result. Some of the "Colombes" supplied to the Italian markets are taken with the Little Owl and lined twigs. But most of the Black Redstarts which I picked out of the bunches of small birds exposed for sale on the poulterers' stalls seemed to have been caught in horsehair snares, which had in one or two cases almost severed the imprisoned limb. Once, indeed, in Germany, I found a newly fledged Black Redstart accidentally detained by a horsehair which had become entangled with one of its feet in the nest. This shows how easily birds of this kind may be snared. I picked out one or two perfect adult specimens of the Black Redstart from those which I found in the Florence market, but most of the birds in question were immature. Their numbers are very small, indeed, infinitesimal, when compared to the thousands of Redbreasts (*Erithacus rubecula*) which annually pass through the hands of the Italian dealers. We are accustomed to revere this species, the "Ruberke," "Röbbyn" or "Redbreaste," as our British forefathers dubbed the "Rouge-gorge" of our French neighbours; yet it must be admitted that I have seen

great store-cages full of fresh-caught Robins in the bird-shops of Club Row.

German sentiment is strongly hostile to the destruction of the "Bothkehlchen" or any singing-bird. Yet writers of Teutonic nationality record the fact that the Redbreast shares the fate of other woodland species. It is often strangled in the nooses set for Thrushes and other migrating birds, especially in Western Germany. But the chief enemies are the Frenchmen and the Italians. Belon tells us that the French peasants of his day used to snare Redbreasts at their drinking-places. Buland regards the "Pipée" as the favourite method of securing this bird. Joubert and Rotherleny-Lapompré observe that the "Bouge-gorge," the "joyous harbinger of autumn," first arrives in the south of France during the second week in September. Its appearance is therefore associated in the minds of the peasants with the commencement of "la chasse aux Grives." But it is when the hapless Robins, that seek to exchange our northern climate for the warm winter sunshine of Italy, have crossed the Alps and taken up an abode in the land of their desire, that the task of extermination commences in grim earnest. Until I visited Italy, I had no conception that the Redbreast existed anywhere in Europe in such abundance as to outnumber every other bird except the Song Thrush and the Sparrow. It is only when one has turned over piles of fresh-killed Robins on the street barrows that one realises the immense numbers of the "Pettiroso" that succumb to the guile of the professional birdcatcher.

Di Valli instructs us that the Roman plan of catching the "Petto Rosso" is to employ a tame Robin as a decoy. This is placed in a spherical cage, mounted on a spiked staff, so that it can be easily planted in the ground. A number of lined twigs are grouped around the cage of the decoy, to which Savi gives the name of the "Gaggiu." The peasant carries his decoy to some copse in which he expects to find a Robin. He then challenges the wild bird with a bird-whistle, or with the "Chioccola." The pugnacious "Pettiroso" flies in a fury to the fray, but while endeavouring to attack his caged rival is himself held fast by the lined twigs. Robins are caught in the "Bresciarella," in trap-cages, snares, and in many other ways. But the chief market supply is obtained by the instrumentality of the "Civetta" or Little Owl. The fowler leaves home as soon as the dew has dried on the grass, and

marches along the hedgerows until he hears the sweet cadence of the Redbreast's autumn strain. The "Civetta" is then placed on the perch ("Gracca"), which is always employed for the Little Owl. The specimen of this perch which I brought from Italy consists of two parts, the staff and the circular headpiece. This latter is covered with cloth, above which a horse network is spread, to give the Owl a firm seat. The staff on which the headpiece revolves (for it is not fixed, but can be spun round at pleasure) consists of a piece of hard wood fitted with an iron spike at the extremity.

The "Civetta" is allowed to hop to the end of the bush attached to the swivel which secures it to the jesses of the bird. The fowler places the "Civetta" in an open space, and arranges a few lined twigs ("Panioui") about the nearest bushes, or above the turf, in the



FIGURE LAST TWO OF FIGURES 1

likeliest positions for the wild "Pettrosso" to alight. The fowler then hides behind a hedge to watch the effect of the Owl upon the Redbreast. The little bird soon emerges from the shadow of the hedge, and hops from one place to another in the hopes of securing a better view of the "Civetta." At last he perches on one of the lined rods, when his curiosity seals his fate. If the fowler finds that the first Redbreast which he wishes to take proves too crafty to succumb to his wiles, he takes his Owl up and moves on to some more auspicious spot. A clever fowler has been known to capture one hundred and fifty or even two hundred Robins in a single day with the aid of a "Civetta."

[The headpiece of this chapter is reproduced from the first edition of China's work. It depicts an Italian peasant endeavouring to catch small birds with the aid of a Little Owl. The "Civetta" is perched upon the top of the "Gracca," to which it is tethered in the fashion still customary in Italy. Three lined rods, all inserted in their sheaths of hollow cane, are lying on the ground to the right of the fowler.]



CHAPTER XIII.—NIGHTINGALES AND BLUETHROATS.

THE NIGHTINGALE (*Dendragapus*) has found hosts of admirers ever since the days when the shepherd Alcous sought to win the smile of his beloved Donace by the offering of a tame bird of this species. The little favourite was already so domesticated as to prefer his wicker cage to the freedom of the woods. Doubtless the captive thus detained at will would warble his sweetest and most varied trills in honour of his pretty mistress. Olinia furnishes a pathetic epitaph preserved in the villa of Sig Jacopo Bosio, outside the Porta del Popolo at Rome, in affectionate remembrance of a "Rusignolo," which came to an untimely end by drowning:—

"In poculo murrhino Caput abscondi
Infeliciter summeus."

The inscription thus concludes:—

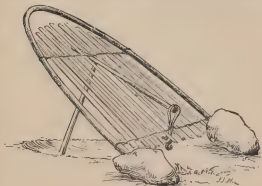
"In caverna picta saltans quæ dulces canebat
Muta tenebrosa Nunc jacet in caverna."

Almost all the Nightingales that have succumbed to the craft of the fowler owed the loss of their freedom to the ingenuity of some kind of spring trap, baited with an insect which proved irresistible to the little minstrel, whose powers of charming the human ear had thus proved his

rain. An exception to this must be made in the case of such Nightingales as may at any time have landed on the Island of Malta. Mr Wright states that numbers of Nightingales are taken on that island at the seasons of their migration. The peasants spread hanging nets over low-spreading Citrus trees, and proceed to drive the newly arrived and wearied Nightingales into the meshes. The Island of Cypri is also famous for the multitudes of small insectivorous birds which rest upon its shores when journeying to Europe from Northern Africa. Every peasant, young or old, looks after twenty or thirty of the little traps called "Gratiglie." I obtained a specimen of this "Trappola" through the great courtesy of Messrs Thomas Cook of Naples. This contrivance is of simple workmanship. The peasant cuts a stout switch about thirty-eight inches long and bends it in the form of a half hoop. He then takes eleven pieces of split cane, nine of which are of equal length. The other two are shorter, in order that they may fill up the space. These eleven pieces of cane are arranged side by side within the wooden arch. They are bound in their places by two lines of twine which are secured to the outer hoop by notches cut on its outer edge. The trap, when complete, presents the appearance of a rude cover. It is placed above a small hollow in the ground, and is propped up with stones on either side. It is set by means of three pieces of wood. The first of these is a small ring of wood which slips up and down one of the bars of the trap. A forked piece of wood is inserted in the ground to support a small perch, which has a sharpened extremity. This last is so adjusted that it rests in the stem of the loose ring, and a live mealworm is attached. When a bird pecks at the insect it disturbs the equilibrium of the trap, which falls on the top of it. The wooden bars render escape hopeless, and the bird awaits the arrival of the fowler in this extemporised prison.

When Mr A. V. Aplin undertook his adventurous journey through Tunis in 1895, I requested him to ascertain what methods of trapping birds were practised in that country. He most kindly brought back the trap for Nightingales and other warblers which is figured here. The net consists of a light mesh-work of the fibres of the date-palm. It measures about nine inches in height and about nine inches also in breadth at the base. It is attached to a hoop of wood, which is kept in an arched position by the band of strongly plaited braided cord which

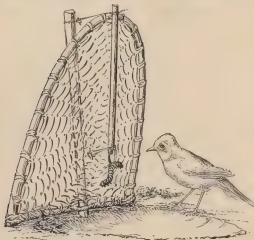
forms the base of the trap. The arch of wood measures about three-quarters of an inch in diameter. A stout wooden stake measuring an inch across and upwards of sixteen inches in length passes through the centre of the cord which forms the base of the trap. This stake is



TRAP.

sharply pointed at the upper extremity. Mr. Apdin remarks that it was when staying in the important oasis town of Gafsa that he discovered that the little Arab boys were in the habit of trapping many small birds with this clever contrivance. Mr. Apdin himself saw several of these traps set in the oasis for the purpose of catching Nightingales, Redstarts (*Parus phoeniceus*), Sahaline Warblers (*Sylvia sahelinea*), Orphean Warblers (*Sylvia orpheus*), and other members of the same group. The traps were always baited with "a tough white, brown-headed grub found underground." Mr. Apdin explains that when the Arab wishes to set the trap the stake is driven into the ground and the base of the hoop net is brought down to the ground. If the hoop is raised into an upright position and then released, it falls sharply to the

ground. To keep the net in the required position, the short cross stick, which measures nine and a half inches and is tied to the stake by a string of fibre, is brought over the top of the hoop, and is next passed through a loop of fibre which is attached to the centre of the net on the inside. The bait is attached to the loop of grass which holds the cross-piece in position. When a Nightingale pulls at the bait it releases the cross-



TUSCANY NIGHTINGALE TRAP.

piece from the loop and the trap falls over the bird. The trap is neatly finished, and quite unlike the traps which I have ascertained to be employed for catching Nightingales in different parts of Europe.

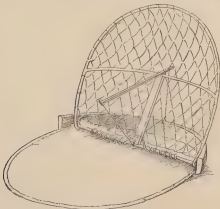
Di Valli figured two traps of Italian workmanship in 1691. Olina reproduced both of these twenty-one years later, on a larger scale, but

without altering the details of either, though he perhaps made their manipulation clearer than his predecessor had done. One of these traps is a trap-pan, supplied with a spring lid, which closes when the Nightingale alights on the perch, to which the bait of a mealworm is pinned. This trap is termed a "*Scarcatora*" by both authors. It is also termed "*La Gabbia scarcatora*," and is just such a trap as is often used in England for trapping Titmice and other small birds. The second Nightingale trap, to which we are introduced by Du Valli and Olina, is a veritable spring trap, of a pattern which has probably become obsolete, though it may still exist in some out of the way places. We do not receive any instruction as to the setting of this trap from either of the authors who figure it. But there can be no doubt that the switch shown as planted in the ground beside the trap supports the net until the hungry Nightingale tags at the bait and brings down the trap. The Nightingale traps which I have purchased from time to time in France and Italy vary in details, but they agree in the main principle of structure. They generally consist of two wire half-hoops, to which a small net is attached. Such a net, purchased at Milan, measures just twelve inches when the two halves of the trap are open. These two halves are doubled backwards when the net is set, and are kept in their place by means of a small notched piece of wood. A piece of wire twisted round this piece of wood serves to hold the bait. When the Nightingale pulls at the mealworm, which invariably forms the bait, the two halves of the trap spring together and enclose the ducky-bird within the meshes of the net. In this Italian trap the wire springs are placed at the opposite ends of the wire hoops, but in the commonest Parisian trap the wire springs form a continuous base to the trap. Little interest attaches to these differences. The traps are made like any other articles of trade, and there is no romance or flavour of antiquity about them. English fowlers used to catch Nightingales by means of a small spring net, but in their case the net was often single, and when sprung covered a green board to which the bait was secured by means of a cork. This cork was connected with a small piece of tin or other sheet metal. A hole bored through the piece of metal enabled the fowler to keep the net back, the tin piece resting lightly on a small nail driven into the board which the falling net covered. When the Nightingale pecked at the insect, which was pinned on the cork, its action released the string

which upheld the net, and thus sealed its fate. Once when walking along a suburban lane I came across a Nightingale trap of a form unfamiliar to me. It consisted of two oblong or rectangular nets which closed together by a spring when the bird attacked the insect used as a bait. When I saw the trap it was being employed to catch Robins, but the East Lambourn who owned it assured me that its proper function was to capture Nightingales. Nearly all these modern traps work on one identical principle, viz. that of the bird pulling a fat grub. It is this that tempts the appetite of the whimsical Nightingale and thus induces the bird to disturb the equilibrium of the net. The valuable co-operation of Mr Norman Douglass has obtained for me two specimens of the spring trap adopted in Western Russia for capturing the Northern Nightingale (*Probus phoeniceus*). This type of trap differs from any others that I have personally examined in one or two interesting particulars. The net employed is large enough to rather more than cover a wooden hoop of a diameter of thirteen inches and a half. Only one single half-hoop of wire is used. The net is attached around to the edge of the wooden hoop for one half of its circumference by a series of small hooks. The other half of the net is threaded upon the outer meshes of the wire half-hoop, which works upon two springs of wire which are placed inside the wooden hoop, about the centre of its width. All the other Nightingale traps that have been mentioned here are designed to be pulled over by the bird when it endeavours to seize the mealworm in its bill. This Russian trap is worked on a different principle. A slender twig nine inches long is strung on four fine threads. These radiate from four points on the inside of the hoop. The wire half-hoop falls on to a piece of tin, which is pierced at the one end to admit of these threads being thus held together. The other end of this metal piece, which measures two inches in length, is turned over, so as to work on a square or oblong wire frame, which rests half in and half outside of the wooden hoop. When the net is laid back, a wire attached to the outside of the wire frame just mentioned is adjusted to lie over the rim of the wire half-hoop. This catch is kept in its place by passing into a small hole in the metal piece first named. The trap is baited with mealworms, which are tied to the perch. When the Nightingale seizes the insects it hops on to the slender perch. Its light weight serves to release the wire catch, and the net flies down, enclosing the Nightingale.

The season at which the Nightingale is usually captured is early spring. Before the capture of Nightingales was made illegal in England our bird-stichers used to catch these birds on their first appearance in the woods near London about the middle of April. These men always told me that when they had marked down a Nightingale which they wanted to catch, they first disturbed the earth, and then set the trap on the fresh soil. Chittenden of Oxford, a veteran who boasted that he knew "every bird was flew," often amused me by the cleverness with which he could whistle the love-song of this bird. To my untrained ear his accuracy seemed great, nor had I any reason to doubt that it assisted him in alluring the wild songster to the trap prepared for its capture. He told me that one of the Nightingales which he netted lived in his possession for four years, and was in fine condition when he parted with it. A Norfolk bird-fancier told me that he caught one or two Nightingales for his own amusement every year. This man generally lured the birds up to the net by imitating their call-note, "A^o, a." His method of inducing the fresh-caught birds to take to the cage diet, technically known to "the fancy" as "misting the birds off," was to feed them at first with live "black-beetles," a fare upon which as he assured me, the Nightingale will sing splendidly. If the French birdcatchers are as adept as those of Italy in trapping the "Ressignol," the bird is, or was, no less persecuted when it crossed the Rhine, and became the "Nachtigall" of their beer-drinking confrères. The "Nachtigallnote" is fully described by Brehm (*Der Vogelfang*, p. 101). But the Germans also snared the bird. The Frenchmen secured its capture with one or other of the spring-nets, which are classed together under the title of Trébuchet. The Germans are also accredited with having taken the Nightingale by driving the bird gently into a fine net, which hung suspended in its favourite copse. The Northern Nightingale is no less ardently sought after as a pet than its western relative. Mr. Douglass informs me that the finest songsters are reputed to be obtained in the neighbourhood of Koursk, Central Russia, and Volhynia. The numbers of this bird are rapidly decreasing in the vicinity of St. Petersburg, in consequence of the activity of birdcatchers. Most of the birds appear to be captured with the spring trap already described, but some are also taken by means of snares. The latter method is explained in Schwaner's *Sportsman's Book for Capturing Animals and Birds*. The Russian fowler,

who aspires to catch these birds, provides himself with some horsehair snares and goes off into the woods. When he has called to a wild Nightingale in imitation of the cry of the female, and has been answered by a cock, he makes a "Floor," which is a suitable spot on which to prepare his trap. Upon the "Floor" so selected the peasant sets up two thin sticks, which are connected together by a piece of twine. The snares are tied to the connecting piece of twine in such a manner that they hang down close to the ground. The trap is then baited with a few ants' eggs or cucumbers. The Nightingale is then driven in the direction of the snares. Hopping furtively from bush to bush, the newly arrived warbler quickly descends the delicate morsels placed in



CHINESE NIGHTINGALE TRAP.

readiness to catch his sharp pair of eyes. He settles on the "Floor" to pick up the food, and soon becomes entangled in the fine snares. Mr. Blauw assures me that the Nightingale is sometimes caught in Holland

in the following way. A large tumbler is pressed into the earth, and some mealworms are dropped into the glass. The bird jumps into the glass to secure the insect, but cannot extricate itself on account of the narrowness of the vessel. The Chinese are enthusiastic birdcatchers. They trap a variety of birds for the market. The Rubythroat (*Calliope canthachlamys*) and the Bluethroat Warbler (*Sylvia swinow*) are special favourites in the neighbourhood of Peking. The Rubythroats are taken principally in the months of September and May. The birds haunt the borders of streams, and their capture is effected by means of spring-nets. These traps are baited with "un ver de bois" (*Juniper and Quercus, Quercus de Chios*, p. 236). I have to thank Mr. Styan for a specimen of the Bow-net used for catching the Rubythroat in China. The trap in question consists of two wire hoops, one of which is fixed into a section of a wooden hoop, thus forming an irregular circle. Another wire connects the two ends of the bent piece of wood, and is furnished with a spiral wire spring. A half hoop of wire plays on the wire rod which connects the two ends of the arch of wood. This last is covered with a fine net. Another wire crosses the middle of the net. To this is attached a small piece of wood, which is also fixed at its lower end to the spiral spring. The trap is set by means of a piece of wood, which is tied by a thread to the wooden arch of the trap. This passes through the net and fits into a small catch, which is loosely tied to the other side of the trap. In short, the Chinese trap works on a similar principle to that of the French and English traps. When a bird tugs at the bait the catch which holds the net is released and the net flies over the bird. In the interior of China such a trap would be entirely constructed of bamboo and string. The Pekinese catch great numbers of the red-spotted Bluethroat in spring and autumn, chiefly in their environs, but occasionally in the town itself (David). One autumn I myself tried to take a Bluethroat with a Nightingale-trap, but food was plentiful, and the dainty little fellow seemed shy and vigilant. It must, however, be admitted that young Bluethroats are at first as bold and confiding as Redbreasts. I fully considered the Bluethroat an easy bird to trap. He caught a young male Bluethroat three successive times in the same net ("Trébuchet").

[The frontispiece of this chapter depicts two German fowlers in the act of driving a Nightingale into a trap. It is reproduced from *Arten von Vögeln*.]



CHAPTER XIV.—BECCAFICUS.

ONE of the most brilliant of modern lawyers once asked me at dinner whether a "Beccafico" was the same bird as a Quail. I mention the fact as illustrating the wide variety of opinions that have prevailed as to the actual identification of the "Beccafico." There is not the slightest question that several small species of insectivorous birds have been regarded as the "Beccafico," even among the Italians themselves. Thus Francesco Monari observes in his little treatise, *La Caccia dell'Acrobato*, published in 1672: "Certain little birds of many species which are all classed together under the title of Beccafichi, are very good when fat; they arrive in April and leave Italy in autumn when the Chaffinch (*Fringuello*) and the Redbreast (*Pitar rosso*) are arriving." Even at the present time the title of "Beccafico" is sometimes applied

to the Garden Warbler (*Sylvia subaurora*), the Orphean Warbler (*Sylvia orphæa*), the Common Whitethroat (*Sylvia cyanea*), and the Barred Warbler (*Sylvia pusilla*). The first of these is beyond all doubt the "Beccafico," and the only species that can be correctly designated thus. Medieval writers were much exercised as to what species should be regarded as the "Fusculu" or "Beccigue." Belon apparently identified the Stonechat as the species signified. He figured the bird as possessing a black head. Gesner was disposed to identify the "Beccigue" with the Caps neri or Blackcap (*Sylvia atricapilla*). Our countryman Turner had already expressed his opinion that the "Beccafico" was "*aviscula Germano guasumacho similis*." Modern Germans apply the title of "Ginsuncke" to several species of Warbler; but the bird which seems to have the best claim to this name is the Garden Warbler. Dr Valli figures a plum-coloured Warbler which he separates as the "Beccafico Canapina," perhaps referring to the Whitethroat. The name of "Canapina" properly belongs to the Icterine Warbler (*Hedysia icterina*). Olina adopted part of Dr Valli's remarks on the "Beccafico" as her own, but gave fresh figures of the "Beccafico;" one of the birds being described as "*Beccafico ordinario*." This last appears to be an undoubted Garden Warbler. Savi tells us that numbers of Garden Warblers or "Bignoni" (as the Beccafico are called at Pesi) are taken in some parts of Tuscany by means of lined tongs placed on the top of a tree. The Warblers are attracted to the spot by one or two caged Chaffinches in song. Count Ettore Aringone degli Oddi remarks that the various Warblers are caught from August to October in the "Ragna portatile" or "Pantiera," at any rate in the province of Padova. The "Ragna" or "Spider-net," which the French call "L'arnique," and the Germans entitle the "Spinnen-gewebe" or "Hangennetz," is a fine open silk net, usually dyed green, stretched between two bushes or posts. It is intended that the small Warblers should be gently driven into this net, which they are unable to distinguish from the surrounding leaves.

The late Dr Maclean of Colchester informed Mr T. C. Heysham that he captured a variety of birds with his "Spider-nets." "The extraordinary success," he writes, "I have had with my spider-nets will afford you much amusement. I have taken all the Warblers except the Wood Wren, the Grasshopper Warbler, and the Dartford Warbler; also Kingfishers, Rock Larks, and an endless number of other birds, and I have not the least

doubt but that I could take any birds except those which are constantly at the tops of high trees." The nets used by this Essex naturalist were made of the finest knitting silk, and of a very small mesh. The Japanese are expert at capturing song-birds, such as the Japanese Robin (*Euthoea alcyon*), with a species of "Ragna" or "Spider-net." Mr S. Fukushima tells me that his countrymen adopt for this purpose an engine which is called "Ten-no-Ami" or the Net of Heaven. It is woven of such fine silk texture as to be invisible to the birds. The length of this net extends to twenty-four or thirty feet, and it is about five feet deep. The net is stretched perpendicularly between strong bamboo supports; the weight of the net is borne by lines which are secured to three rings, attached at suitable distances to the bamboos on each side. The fowler takes his net into a bamboo copse, in which he arranges the net or nets for several days, of course, to be used at the same time. The wild birds are attracted to the spot by the caged droop which the fowler hangs up in the midst of the bamboo grove, as the birds fly to and fro they are intercepted by one or other of the nets. Beaters are sometimes employed to drive the birds out of cover into the nets.

The Blackcap or "Fauvette à tête noire" is one of the most popular cage-birds on the Continent. The Parisians especially are warm admirers of its pretty song. This species is always represented in the bird-shops on the banks of the Seine. It is often taken with the horn-shaped spring-trap used for catching Nightingales. This is especially the case in spring, when a plump mealworm is an irresistible bait for most of the little insectivorous birds. Both the Frenchmen and the Germans catch the Blackcap or "Schwarzkephfigge" in the autumn. The springes are baited with currants in July and August. In September elder berries are most attractive. I have seen elder bushes near Montreux which had been stripped of all their fruit by the Blackcaps. My friend Count Camozzi Vertova is in the habit of hanging up caged Blackcaps in his woods near Bergamo, in the hope that they will attract others of their brethren to take up their quarters in his delightful preserve of singing-birds. I tried on a certain occasion to catch some specimens of the Great Reed Warbler (*Acrocephalus lardaleus*) among the reed-beds of the Rhone, in the hope of studying one of these fine songsters in captivity. My success was *nil*. Friderich, however, says that it is possible to trap this retiring species with snares prepared in the following way. The

birdcatcher chooses a natural branch of a tree to which several twigs are growing. He attaches a number of horsehair nooses to the twigs, so that the branch is festooned with a row of snares. He takes several boughs which have been prepared in this way, and sets them in a bed of reeds projecting out over the water, or standing up from the side of a marshy bank. The Great Reed Warbler soon creeps through the reeds. Spying the newly erected perch, he naturally alights upon it, and is held an unwilling prisoner. The chance of success is increased if a live meal-worm is tied to the downy bough. The Sedge Warbler (*Chrysopodatus schachdennae*) can be taken with handlined twigs, but the method which Friedrich commends for procuring specimens is that of stretching a closely clinging net ("Klebsgarn") made of green silk or of grey thread, and of so fine a mesh that the Sedge Warbler cannot creep through, across some ditch frequented by one of these birds. The net hangs perpendicular to the water. The fowler fixes up his net, and then, with the aid of a companion, proceeds to drive the bird into the wall of silk intended to arrest its flight. The Japanese are fond of taming the Bush Warbler (*Cettia caerulea*) for the sake of its sweet song. It is chiefly caught by means of birdlime ("Mochi"), especially in spring or early summer, when birds have begun to breed. The fowler catches a live Sparrow (*Passer montanus*), and threads a fine line of about four feet through its nostrils. He next takes a long slender bamboo. He proceeds to attach the Sparrow to the top of the bamboo by the thread which passes through its nostrils. The Sparrow has thus freedom to fly at a distance of four feet from the bamboo. The fowler plants the bamboo in a bed of reeds or other undergrowth frequented by the Bush Warbler. He has previously secured the sides of the bamboo with birdlime, only taking care to leave the uppermost four feet of the bamboo free of birdlime. Other twigs covered with birdlime are placed on the bushes in the neighbourhood. A bag string is tied round the bamboo, by which means the fowler is able to jerk the net at pleasure. When the Japanese tugs the cord tied to the bamboo, the Sparrow finds his perch rock uneasy; accordingly, he flies round and round at the end of his tether. The Bush Warblers resent the appearance of the thievish Sparrow in the vicinity of their nests. They therefore emerge from their favourite cover in order to expel the intruder from their special domain. No sooner does a Bush Warbler alight on the side of the bamboo, or upon any of the twigs, than

"Bush Warbler" should be Chinese Great Reed Warbler
Chrysopodatus schachdennae 1896 p. 129

it is held by the birdlime. " The best season for this game is April and May when they rear their young ones." The Alpine Accentor (*Accentor alpinus*) is taken at intervals in some numbers in the German markets. The birds of this species that formerly lived in my aviary, and delighted us with the *exult* and vivacity of their sweet strains had been sent to Paris, where I bought them, from Geneva. These birds are snared and trapped by simple devices in the neighbourhood of the Alpine villages in the winter time. Gesner described and figured the Alpine Accentor from a specimen which accidentally entered the ancient castle of Kyburg through an open window in the year 1559. Nobody knew what it was, but all the company were charmed by its sweet song. The Common Hedge Sparrow (*Accentor modularis*) is easily caught with snares, in a spring-net, or by any simple device. The Chinese are fond of caging the Mountain Accentor (*Accentor monticola*), feeding it on millet.

It is an astonishing fact that such diminutive birds as the Goldcrest (*Regulus corollatus*) and the rarer Firecrest (*Regulus parvifrons*) should be thought worthy of the pursuit of the fowler. I was surprised to find whole bunches of Goldcrests, with an occasional Firecrest, in the Italian markets; not, indeed, in the same numbers as the Common Wren (*Troglodytes caudatus*), but still far from uncommonly. Two Firecrests, a male and a female, which I picked out of the bunches of dicky-birds in the Florence market were in perfect plumage—but, from the appearance of the feet of the male, I judged that they must have been snared. The only Goldcrest that I ever kept as a pet appeared to have been reared from the nest by hand. Frenchmen are adepts at bringing up the young of this, as well as the Brown Wren and many other insectivorous species. But Goldcrests are captured as pets when adult. Friderick says that the best plan is to take a caged Goldcrest and hang it out in the woods, placing a few lined traps around the cage. Helon is the earliest author known to me who figures the Goldcrest. He tells us that in his day it was called the " *Soulen* " or " *Paul* " in France. He describes its colour accurately, and observes that it frequents hedges and garden plants, feeding on minute flies. It is difficult to keep in a cage; yet he vouches for the nestlings of the Goldcrest having lived for two or three months in captivity. Gesner figures the Goldcrest as the bird which was known to the Germans of those days as the " *Golthendlin*."

Gesner tells us, too, that the Goldcrest was known at Florence as the

"Fiorrancio," an allusion to the fact that the golden crest of this *Regulus* bears some resemblance in colour to the blossom of the orange tree (Melarancio). Abbrevandus figures the Goldcrest from a specimen bought in the Bologna market. He remarks that the species was called "Capo d'oro" at Verona, from its bright crown. 16 Valli gives a rude figure of what he calls the "Reatino maschio." The artist evidently took a Firecrest for the subject of his engraving. He has produced a bird with a conspicuous, white supercilious stripe, and three black facial streaks. So far as I can discover, this is the very first illustration of the Firecrest. It is noteworthy that, though this figure appeared in 1691, it was not until 1820 that the elder Bachman pointed out the distinctions between the Fire-crested Wren and the Golden-crested Wren. This becomes the more surprising when we remember that Olina, whose work was widely circulated in Europe, furnished a very fair likeness of the Firecrest in the first edition of his *Ornithicon* in 1622. He did more than figure the Firecrest, which he calls by the Tuscan name of "Fior Rancio," for he describes exactly the plumage of the bird, even drawing attention to the white supercilious stripe, which he expresses as "sopra l'occhio ha una macchiotta biancha." He and other Italians are unanimous in stating that the *Reguli* are captured with limed twigs placed around a Little Owl. I believe that the Common Wren, or "Be de gli Uccelli," is captured in the same fashion in different parts of Italy.

The Dippers (*Certhia*) can all brook captivity. They are therefore seldom harried by the feather. Campbell mentions having seen the "Merlo acquaiolo," or Water Ouzel (*Cinclus aquaticus*), netted along with the Kingfisher in the neighbourhood of the Italian lakes but I understand that this species seldom reaches the Italian poultryers.

The Bullbuls (*Pycnonotus*) include in their number several species which the Indian birdcatchers trap for the market. Mr Harold Littledale informs me that the natives of Kanoh generally rear Bullbuls and other song-birds from the nest. They are also caught when adult by means of birdlime ("Lachchha"). This substance "is smeared on thin twigs of bamboo, which are laid cross-wise on the ground, and have grass-hoppers and other insects (fresh-water larvae are very attractive) tied by hairs near them or stuck with a little of the birdlime, or else the limed twig, lightly adhering to the end of a long thin bamboo, is gently pushed up into a tree in which the unsuspecting victim is perching." Jerdon

states that the long rod supporting a lined twig is called "Leishua" in Hindostani. In December 1894 Mr Littledale came across some natives who were catching Bulbuls in the neighbourhood of his own house at Panoda. He induced the fowlers to carry their gear to his house, where he most kindly took a photograph of the arrangement of lined twigs which these men employed. "You will see," he writes, "from the photo, that a tame Bulbul is tied by the body to a long string end in a knot



DECOY BULBUL AND LINED TWIG

and a perforated bullet, this string is wound several times round a piece of brick, and so the decoy is placed about eighteen inches from the snare. The snare consists of two bamboo laths about fifteen inches long, tied cross-wise, and bent down at the ends for two inches to form a sort of table. Finer twigs covered with birdlime are laid on this, and some large insect (which they find in mud on river banks) is tethered beneath by a thread tied round its middle. They caught two Bulbuls with this snare yesterday, specimens of the common Red-vented Bulbul (*Molpaster banniarobus*). It is a singular fact that the Black-eyebrowed Bulbul (*Pycnonotus leucotis*) often becomes intoxicated by eating fruit that is over-ripe and has undergone fermentation, more especially the Cape gooseberry. Mr Ayres observes that, in this drunken state, the Bulbuls "are easily caught, as they can fly but a few yards at a time, and then not straight, soon tumbling to the ground."

The Japanese turn the Bullbul's love of fruit to good account. The Brown-eared Bullbul (*Hypothymis azurea*) is a popular cage-bird in Japan. It is taken by a device which is called the "Orange trap" ("Mikan kage"). The fowler first discovers some favourite haunt of this species. He next chooses a tree of suitable dimensions, and carefully encumbers the branches with barbed wire ("Mochi"). He then arranges a number of oranges about the boughs. When the Bullbuls alight in the tree and commence the feast, the unfortunate birds are taken prisoners by the viscous lime. Unable to retain their proper equilibrium, they hang helpless from the branches until the fowler nearly reaches them into a net which he keeps in readiness. This net is shaped like a butterfly-net. The circular ring supports a purse-shaped net, well adapted to catch the bird, which is easily detached from the bough to which it is clinging. The net is attached to a long bamboo rod, at such an angle as enables the fowler to give the net the necessary play among the branches. The actual connection between the net and the handle is a half-hoop, which moves in a socket fixed at the top of the long bamboo.

The Italians have an old proverb, "Per San Benedetto la Rondine è sul tetto," which may be rendered, "The Swallow settles under the eave on St. Benedict's day." The 21st day of March is earlier than we can hope to congratulate ourselves upon the Swallow (*Hirundo erythrogastra*) twittering under our windows in England. Unfortunately both this bird and the House Martin (*Hedymeles sedula*) have to run the gauntlet of the southern fowlers before they can speed their swift flight around our gables and battlements. The House Martin, or "Ralestruccio" as it is called in Italy, is often caught in Tuscany by means of a horse-hair snare, which has been tied to a feather or a tiny morsel of cotton. The Martin spies the object floating in the air at the end of a fine line, which the fowler holds in his hand as he stands at an upper window. The bird, being intent on gathering materials for its nest, makes a dart at the feather, only to find its head encircled by an unsuspected noose. Mr Hugh Popham reports to me that the small boys of Venice contrive to catch Pallas's House Martin (*Hedymeles hypoleuca*) by a simple ruse. "They tie a white feather on the end of a fine thread and leave this on the ground near a church where all the Martins are breeding, on the chance of the thread entangling the bird's wings as it carries off the feather to its nest." Such trifling devices as those just named inflict no

serious injury on birds of this family. It is by the use of the Clap-nets that the real havoc is wrought in the ranks of our pretty Swallows. Savi deeply deplored the destruction thus worked among the legions of Swallows and Martins which traverse the plains of Tuscany on their migration. Count Raimo Arrigone degli Oddi, writing in 1894, found himself obliged to include the House Martin and Swallow in a list of the birds which are of the greatest commercial value to the poultryers in the province of Pavia. He tells us that in certain localities, e.g., Bongotorte, on the Adige, numbers of Swallows are captured in the "Paretaps" or Clap-net in the month of May.

Five hundred birds are sometimes netted in a single day. In the south of Italy the Craig Martin (*Cath. repens*) shares the fate of its less distinguished congeners. This species is abundant in Sicily in some winters. In February 1886 great numbers appeared in the province of Syracuse, and many were netted for the table. "The birds proved to be very fat, and were consequently much in request" (*Ateneum Italia*, Vol. III. p. 572).

[The headpiece of this chapter illustrates the Japanese method of capturing the Bush Warbler by means of birdlime and a dove Tree Sparrow, described above (p. 129).]





CHAPTER XV.—HONEYSUCKERS.

THE original adaptation of feathers to the purposes of personal adornment carries us back into the prehistoric period. It continues to exist among those races which have emerged most recently from the slough of barbarism. The Alouts of the Pacific, the North American Indians, the Kaffirs of South Africa differ widely in most other respects; but they agree in the value which they place on the plumes of rare or gaudy birds. The desire to possess this particular kind of ornamentation seems to have reached its culminating point in the uses of the Maoris and their ancestors in Hawaii. Dr N. B. Emerson contributed a valuable paper on this subject to *The Hawaiian Annual* for 1895. He tells us that the old kings of Hawaii had men in their service who specially followed the vocation of birdcatching, called "Kin-mann." It is even related that an ancient sovereign tided over a crisis in imperial affairs by lending his warriors into the mountains on the pretext of engaging in birdcatching. The fowler wore a special dress when carrying on his fowling duties. The climate of Hawaii is characterised by fierce, tropical downpours of rain. The birdcatcher clothed himself in a long waterproof cloak, which encased his person from the head to the knees. "The basis

of this garment was a net-work, into the meshes of which were looped strips of dried Tuleaf, that hung point down on the outside. The method was almost identical with that used in rooking a grass-hut. The species must sought after by the birdcatcher was a Honeyucker, the *Oo* (*Ardeus sacristi*). It is of this species that Mr Scott Wilson writes: "It is doubtful whether in ancient days it was from the yellow feathers that grow beneath its wings, or from the still more beautiful yellow feathers of the now extinct *Diaparus parviflor*, that the state robes of kings and chiefs were wrought. It was the privilege of those classes alone to wear them, and it cannot be denied that they formed a becoming apparel. . . . The fabrication of the great yellow war-chuck of Kamehameha I had been going on through the reign of eight preceding monarchs. The ground-work is of coarse netting to which are attached with skill, now impossible to be applied, the delicate feathers, those on the border being reverted. Its length is four feet, and it has a spread of eleven feet and a-half at the bottom, the whole having the appearance of a mantle of gold. The examples of the chucks and capes which I examined were all of the lighter shade of yellow which belongs to the feathers of the present species." The feathers were largely used in payment of the annual tribute or land-tax. A higher valuation was formerly set upon these feathers than upon any other form of Hawaiian property. The *Mano* (*Diaparus parviflor*) is supposed to be extinct. It is conjectured that the golden-yellow feathers taken from the back of this bird were utilised to adorn the war-chucks of the chiefs. Red or scarlet feathers were procured from the *Iwa* (*Festania cinnamomea*). These were plucked from the breast, and adorned capes and helmets. The tree which supplied the nectar upon which the Honeyuckers subsisted is the *Oha* (*Metrosideros polymorpha*) which is adorned with brilliant crimson blossoms. The favourite hunting grounds of the border were the moist woodlands of Hilo, but he also plied his craft in Hamakua, Kohala, Kona, and Puna, as well as on the other islands of the group. The birds were not persecuted at all seasons. The campaigns planned for their destruction were carried out when the *Oha* was in flower. The trees of the lower grounds blossomed in March, April and May, those which grew on the more elevated stations blossomed from the beginning of August until the close of October or the beginning of November. Hence the birdcatcher plied his trade in spring, and again in the fall of the year. The birds generally

performed a local migration, from the lower grounds to the higher regions, or conversely, as best suited their food supply. But the Mamo was always a bird of the mountains. A fowling expedition was preceded by religious rites. A service of intercession for the success of the undertaking lent solemnity to the proposed enterprise. Dr Emerson supplies the following version of an ancient invocation of the Hawaiian bird-catcher, as used by an old fowler of Hilo:—

*(Original.)**(Translation.)*

" Na numakua i ka Po,	Spirits of Darkness primeval,
Na numakua i ke Ao,	Spirits of Light,
Ia Kane i ka Po,	To Kane, the eternal,
Ia Kanaloa i ka Po,	To Kanaloa the eternal,
Ia Hoomaha i ka Po,	To Hoomaha, the eternal,
I ko'u mau kupuna a pau loa i ka Po,	To all my ancestors from eternity,
Ia Ku-huluhulumana i ka Po:	To Ku-huluhulumana, the eternal:
A pale ka Po,	That you may banish the Darkness,
A puka i ke Ao,	That we may enter the light.
Owan, o Eleole, ka mea iiaia ka mana,	To me, Eleole, give divine power,
Houmi he iko,	Give intelligence,
Houmi he loa nui,	Give great success.
Pili oukou a ke kua'iwi,	Climb to the wooded mountains,
A ke kua'ono,	To the mountain ridges,
Ho'a mai oukou i ka manu a pau,	Gather all the birds,
Hooli oukou iluna i ka mana kapa	Bring them to my gum to be held
kahi e pili ai,	fast.
Amama! Ua noa,	Amen! The way is open."

When the hunter had thus inaugurated the fowling season, he set to work to construct the huts in which he and his wife intended to camp. The engines of his craft varied according to circumstances. Many of his prizes were captured by means of birdlime. Mr Scott Wilson observes that the Hawaiian birdlime was made of "the sticky juice of the breadfruit, and of the tenacious gum of the fragrant 'Olapa, a common tree in some parts of the forests."

Dr Emerson explains that birdlime was made in several ways. "The sticky gum of the breadfruit tree was sometimes used, but that of the 'Papala' and of the 'Oha' were more highly esteemed. Sometimes a compound of two or more was made, being mixed and purified while

gently boiling with water over a fire." The birdlime was manipulated in various ways. The most usual plan was to employ a long, slender pole of dark spear wood, resembling a fishing-rod. This bird-pole was called the "Kia" or "Kai-mann." The pole was furnished with a hook at the slender extremity, by means of which its owner could hitch it over the bough of a forest tree. The pole had a cross-piece, called the "Kano."



Kano—Kia

A forked branch was bound above the cross-piece, designated as the "Kia" or "Amama." Both the fork and the cross-piece were smeared with birdlime. The hunter himself, writes Dr. Emerson, "must remain concealed beneath the shelter of the foliage, or if that be too scanty, under a covert extemporised from material at hand, fern leaves, or 'iesio' fronds. If the day is a good one and the charm of his prayer works well, the birds will presently make their appearance singly, or by twos and threes. Aon a struggling and a fluttering of wings announces to the watchful hunter that the little creatures have alighted on his poles and are held fast by the sticky gum. It would seem as if the alighting of one bird on the lined fork or cross-piece of the hunter's pole did not deter others from seeking to put themselves in the same plight. At the right time the hunter cautiously withdraws one pole after another, and using

care that no bird escapes, transfers the captured birds to the bag that hangs at his side, or to a cage of wicker-work that is kept at hand." Mr Scott Wilson remarks that the bushman often smeared the birdlime about the branches of a flower-covered thorn. This explanation tallies with Emerson's observation that the fowler often made his pole attractive to the birds by baiting it with their favourite flowers. "With this intent he sometimes attached to his pole a flowering branch artfully smeared with gum, or the 'Kepen' would be applied to directly to some part of the tree where the hunters judgment told him the bird would alight to feed." Scott Wilson and Emerson state independently that the Hawaiian fowler used to employ decoy-birds to entice their tree-brothers to the fowling-pole. The species which seems to have been utilized as a decoy with the greatest frequency was the beautiful scarlet Apapane (*Himatione sanguinea*). One reason for the selection of this bird as a decoy was supplied by its pugnacity, since the free bird could easily be lured, in its eager quest upon its brilliant but tethered rival. Another consideration influencing the choice of the fowler was the fact that this bird was generally one of the first captured in the day. If the fowler caught one of these birds, it was an easy matter to attach the newly-made prisoner to the prong at the tip of the pole. At the same time we must remember that it was customary to keep live examples of the Apapane, the O-o, and the Iwi in special cages, in order that these tame birds might be used to attract wild individuals. The captives were supplied daily with the nectar-flowers from which they derived subsistence in their native woods.

The title conferred on the decoy-bird was "Mamoo" which signified "bait." While the O-o, and several other species sought after by the fowlers, moved from one elevation to another in search of food, the extinct Mamoo frequented the upper forest regions. In these surroundings it was generally snared. The engine employed for its destruction was a simple mouse ("Pahole"), arranged beside the blossom of the fruit or flowers which the Mamoo loved. Great care was needed in setting the snare without arousing the suspicions of the Mamoo. The mouse was attached to a fine line fifteen yards or more in length. The fowler first adjusted the snare and concealed himself in the vicinity, holding the end of the line in his hand. He then commenced to imitate the penetrating whistle of the Mamoo. "If the Mamoo was within hearing and pleased with the hunter's call, he would answer and soon be on the wing in that direction,

to make acquaintance of the snare that had called him. At the bird's approach the hunter modulates his voice, only piping forth an occasional reassuring note, to lead the Mango still nearer, relapsing into silence and motionless quiet so soon as the bird has come within sight of the baited trap. Having made his reconnaissance and satisfied himself that all is right, the bird alights, and warily cocking his head to one side and the other to observe more closely, he moves forward to taste the hunter's bounty—in doing which, he must set his foot within reach of the nicely placed snare.—on the instant the birdcatcher pulls his line and the bird is his." The birds were sometimes liberated when they had been deprived of their brilliant plumulets. Kamehameha I. is reputed to have rebuked his fowlers for killing the birds they caught in woods which passed into a proverb: "The feathers belong to me, but the birds themselves belong to my heirs." It was the custom of some fowlers to release the first bird they caught, untrapped, as an offering to the gods. The Mango and such other birds as the fowler intended to eat, when plucked, were killed by pressure over the breast, wrapped in the dry outer sheath of the banana stalk, and placed in the fowling-bag. The Oo and other species which were not eaten were kept in cages until the task of stripping them of their coveted feathers had been completed. So far as I can judge, the Hawaiian method of snaring Honeysuckers seems to have borne a close resemblance to the usage of the Maori. Preeminent among the smaller birds which fell victims to the wiles of the Maori during the last half of our century was the Bell-bird (*Anthracoceros albertus*). If its plain olive-green plumage lacked the lustre of some other members of the same family, yet its rare powers of melody have been famous ever since Cook sailed across the Pacific. But its edible qualities constituted its chief merit in the eyes of the aborigines. The engine employed for securing the Bell-bird is figured by Sir W. Buller. He describes it as "formed of a carefully selected piece of kareao vine, having the necessary curve upwards. The lower part of this is fastened to the thick end of a bush-rod, eight or ten feet in length, through a small hole in which a hooped flax line is passed,—a crook, to serve as a support, being placed on the opposite side. At the upper extremity of the artificial perch thus produced, a circular flower-holder, made of split vine, is fixed, and a string connects it with the stem of the tube, whilst the attachment of the lower end to the support is concealed by a covering of soft moss, carefully tied round

with a strip of green flax, every precaution being taken to give it a natural appearance. Having lured and set his snare, the birdcatcher latches it by the crook to a branch in some favourable position, and prepares for action. Concealing himself in a shelter of ferns, torn from a tree-fern, and hastily stuck into the ground with the tops overlapping, he mutes the alarm-cries of the bird by means of a raka leaf placed between his lips. The call is soon responded to, and birds from far and near hurry to the fatal spot. The aerial Maori then stops calling, and the birds, as soon as their excitement has subsided, begin to look about them and are attracted by the flowers. The instant one touches the treacherous perch, a pull on the string bringing the loop home secures it firmly by the leg. The take is then gently unlatched and lowered from the branch, cleared of its victim, and quickly re-set. Buller adds that in bygone days, when this bird was abundant, certain ranges were famous as preserves of the Bell-bird or Korimako. At the present day the snaring of Korimakos by their ancestors is frequently pleaded as supporting native titles to the ownership of land. Mr W. W. Smith of Ashburton, to whose valuable assistance I owe much of the information here embodied, writes to me that he has a personal knowledge of native fowling. "When living," he says, "on the Rangitika River fifteen years ago, we spent many pleasant days snaring Bell-birds (Moko Moko), Tuia, and Kaka Kakas on the stately, mellifluous flowers of the native flax (*Phormium tenax*). The Kaka Kaka was more easily snared than the Moko Moko or the Tui. We used the simple noose snare made in a few minutes from the fibre of the flax, fastened on the end of a line, pliable red. During the last twenty years we have experienced two irruptions in the native districts, of the native paroquets. The failure of their natural food in the forests is the cause of these occasional irruptions. It is truly pitiable to observe the emaciated condition of these beautiful little birds when they arrive, and the eagerness with which they devour all cultivated fruits. During the last irruption we snared scores of these birds in the gooseberry and currant bushes. Although naturally cautious, shy birds, they were so intent in eating the green fruits that we were able to approach them undetected and capture them with the flax noose-snare. We obtained some very variable and beautifully marked specimens by this means." It may be remarked, in this connection, that the simple flax snare which Mr W. W. Smith has

sent to me is no thicker than the ordinary gut cast attached to a trout-fly. The species for which the flax snare is now most commonly employed is the Tui (*Prothomaidia nana confusaria*), a bird rendered conspicuous by its metallic green plumage. The throat of the male of this Honey-sucker is ornamented with two small tufts of white and spinal feathers, which suggested the popular title of "Parson-bird." Buller informs us that when the Kowhai (*Nyctera grandiflora*) has cast its leaves, and is covered with a beautiful mantle of yellow flowers its branches are alive with Tuia.

The illustrations prepared for White's *Accurat History of the Maori* include a representation of a Kowhai tree in bloom. Numerous running nooses hang on every twig and spray. Several Tuia are depicted as hanging by their necks in the snares. In December and January when the *Prothomaidia* female is in full bloom, the Tuia leave the forest and repair to the flax-fields to feast on the konari honey. "At these times large numbers are caught in snares or speared by the natives, who thus supply themselves with a delicious article of food. On these occasions the best-conditioned birds are preserved in their own fat, and pickled in calabashes, 'hau-hau-koko' being esteemed a great delicacy. At the periodical festivals one or two of these pots decorated with Pigeons' feathers are placed on top of the great pile of food which is presented to the visitors at these ceremonials. Calabashes of kaka, titi, and koreu are plentiful enough, but one of 'Tui' gives the finishing touch to the menu at a Maori feast of the kind I have indicated." Tutuati Ranapiri describes no fewer than seven methods of capturing the "Tui" or "Koko." He describes this Honey-sucker as wild and shy when in good condition, though its caution becomes less marked when the bird is thin. The snares employed for its capture resemble those in vogue for catching parrots and pigeons. The method by "Strikeing," on the other hand is specially adapted to the habits of the Tui. "When the experienced fowler goes to the forest to 'strike' Tui or Kokomako, he very carefully searches for a suitable place for the perch; for on its suitability alone depends whether the birds will come to the perch. If the suspension of the perch or the locality is bad no birds will come near it, for the perch is the principal thing, and of most consequence in this system of taking. The 'call' is not of so much consequence; most men know how to do that. Should a suitable place be found by him who uses the perch, when he has finished his work he

destroys it, together with the fern-tree hut, so that no one else shall find it, and retains the knowledge of the place to himself. It is not, however, the knowledge alone of how to select a proper site for the perch, that discloses its suitability; but the ease with which the birds can alight on it is a factor also. The perch (tiao) is a pole about 7 ft. long and an inch thick, one end of which is suspended on a tree and the other on another tree, so that one end is much higher than the other. The fern-tree hut in which the fowler sits, is much beneath the lower end of the perch. So soon as the hut and perch are completed, the man occupies the former, and commences to call the birds that they may fly on to the perch, which is done by the aid of a Patete leaf (*Schlotheimia dyssodactyla*) inserted between his lips: with this he makes his call (imitates the note of the Tui). The birds are knocked off the perch with a long flexible stick. A great number of birds are caught in this manner; an experienced man will take as many as one hundred in a day. The method of taking Tuia with a snare is called "Penna." Its most important accessory is the "Whaka" or artificial perch upon which the snare is extended. It is baited with a flower. The Tui does not alight on the trap as soon as it hears the call of the fowler, preferring to wobble first from some neighbouring bough. Another form of Tui-fowling is that known as the "Tuma." This is adopted in the season when this Honey-sucker becomes very fat by feeding on the berries of the Popano or Kaho (*Solanum gracilipes*). In this case a slip-snare is arranged over a natural perch, and a bunch of ripe fruit is suspended at the end of the perch. The Tui passes along the perch to seize the fruit, and as soon as its feet are placed within the snare, the fowler jerks the string hand-line and secures his prize. From ten to twenty Tuia are caught in a day by this method. The Maori also secure the Tui with bird-spears. This variety of fowling is resorted to on rainy days, when a wind is blowing. The noise of the wind enables the native to creep unnoticed up to the low shrubs in which the Tui finds its favorite food at certain seasons. The Tui is also taken at its roost. "In the month of June," writes Tamati Ranapiri, "in winter, in frosty weather, in the evening of the day, the expert fowler seeks out the sleeping-places of the Tui. Experts will never fail in finding the sleeping-places of the Tui. The numbers to be found on a single perch sometimes amount to ten or twelve, sometimes more, sometimes less. The men listen for the return of the Tui to their

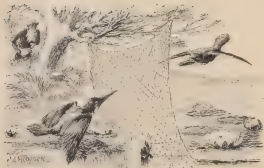
sleeping-place, known by their cry, which is the guide in such cases to their sleeping perches. Their cry in the evening is *Kooe! Kooe!* and the same when on the sleeping perch. When a perch is found, it is carefully noted, two or three are found on a single evening. Before the darkness of night a torch is made, and during the darkness, before dawn, the men who have found a sleeping perch proceed to the forest, where they light their torches. They then climb to the trees where the Tui are,—one to enlighten by the torch, another to climb and so soon as he gets to where the birds are, he catches them. The birds will not fly, not the least, because their claws are contracted by the cold of the night, they, of their own accord, cannot loosen their claws from their sleeping perch at that time of night, owing to their being benumbed. So soon as they have secured the Tui of one perch, the men proceed to another and so on, and thus obtain all the birds of the sleeping perches seen the previous night. The fowlers do not find it worth while to climb the trees, unless the night is frosty.

Another small bird generally associated with the Honeyuckers is the White-eye (*Zosterops lateralis*). Its appearance is insignificant, its upper feathers being olive-yellow and the breast grayish-white. In size it is no larger than a Willow-wren (*Phylloscopus trochilus*). It is one of the few New Zealand birds which have increased in numbers of late years, to which fact it owes its occasional destruction at the hand of the Maori. "In the Bay of Plenty district," writes Bullock, "it is particularly plentiful, so much so as to form an article of food to the natives. They are in season in the months of March and April, and are then collected in large numbers, singed on a bush fire to take the feathers off, and forthwith converted into Hauhau and potted in calabashes. The catching is effected in a very primitive way. The birds have their favourite trees upon which they are accustomed to congregate. Selecting one of these, the birdcatcher clears an open space in the boughs and puts up several straight, horizontal perches, under which he sits with a long supple wand in his hand. He emits a low twittering note in imitation of the birds, and, responding to the call, they cluster on the perches, filling them from end to end. The wand is switched along the perch, bringing dozens down together and a boy on the ground below picks up the stunned birds as they fall." Another species of the same genus (*Zosterops lateralis*) is known in the island of Reunion as the "Oiseau-bleu." It feeds chiefly

on nectar, and is much sought after by the mountaineers. These little birds are captured by means of birdlime, and sold in hundreds to the people in the towns. The usual method of cooking them is to roast them on spits, each bird being separated from its fellows by a small piece of bamboo (Pollen, *Rois de Madagascar*, 2me partie, p. 75).

[The headpiece represents a *Masi* engaged in snaring Honeysuckers. It is reproduced, by kind permission, from the Journal of the Polynesian Society. The tailpiece illustrates the capture of the Tui.]





CHAPTER XVI.—WOODPECKERS AND KINGFISHERS.

THE EUROPEAN WOODPECKERS (*Psittaci*) have generally little to fear from the craft of the fowler. It would, however, be a mistake to suppose that these forest-loving birds enjoy complete immunity from persecution. I have repeatedly seen both the Great Spotted Woodpecker (*Dendrocopos major*) and the Green Woodpecker (*Merops viridis*) exposed for sale on the stalls of the Italian peddlers. Saxi remarks that the habits of the Woodpeckers expose them to the danger of being captured in their nesting holes; adding that, in Tuscany, whole broods are often captured by the peasants, who enlarge the orifices of the entrances to the nests with hatchets, so as to admit the entrance of the arm of the rafter. Similar practices obtain even in England. I have had both old and young birds brought to me by country fellows, who had yielded to the temptation of securing a rare species. The nestlings of both the Great and Lesser Spotted Woodpeckers are easy to bring up artificially, and become most attractive pets. A female Lesser Spotted Woodpecker (*Dendrocopos minor*) lived in my possession for more than a year, and afforded us end-

less diversion by her wood-boring habits. But it is chiefly by the agency of snares that Woodpeckers are taken when adult. In the north of Europe birds of this family are not infrequently taken by accident in the snares which are suspended in the trees for catching different species of Thrushes. A fine example of the Great Black Woodpecker (*Dryas auritus*), which I purchased one day in Leadenhall market, still retained a horsehair noose tightly fastened round its neck, a proof that even birds of considerable strength occasionally succumb to the wiles of the thrush-catcher.

The Rev. H. F. Siedl of Hohenstein, Nassau, records that the Grey Woodpecker (*Geothlypis caesia*) eats the berries of the Service-tree. He adds, "I have caught the bird once in the snow with these as a bait, and found on examination that it had swallowed the berries." (*J. Z. N.* 1857, p. 186). Similarly, Professor Collett informed Mr Dresser that all the Woodpeckers feed on berries in autumn. The White-backed Woodpecker (*Dendrocopos leucostictus*) is taken every autumn in the snares set for Thrushes near Christiania, a fate which is shared by its congener the Great Spotted Woodpecker. The Lesser Spotted Woodpecker is taken by the Turkish birdcatchers. Mr Hobson states that the capture of this bird is effected by means of "lined twigs, set on low trees in hedges during the autumn migration." Savi states that the Green Woodpecker is sometimes taken in the Clap-net, when a Little Owl has been placed in the centre of the tails. All the Continental writers agree that the Green Woodpecker, or "Pievert," as the "Solitaire Inventif" calls it, is occasionally secured upon the lined twigs which are set at the drinking-places of the woodland birds in sultry weather. Selivanovski informs us that the Russian peasants capture the different species of Woodpeckers at the daisy tree used in the sport which the French call the "Tapis." He adds that "To catch the Woodpecker, it is necessary to produce a noise by tapping the handle of a knife against the heel of a boot, in imitation of the noise made by these birds when pecking a tree. For the Woodpecker it is necessary, moreover, to set up twigs covered with birchlime on the stem of the tree as well as on the branches."

The numerous Woodpeckers of the United States appear to be bitterly persecuted by our Transatlantic brethren; but their skins are usually obtained by means of powder and shot. An exception to the rule is suggested by Audubon's description of the way in which the Red-headed

Woodpecker (*Melanerpes erythrocephalus*) is, or was, exterminated in Kentucky and other Southern States. "As soon as the Red-heads have begun to visit a cherry or apple-tree, a pole is placed along the trunk of the tree, passing up amongst the central branches, and extending six or seven feet beyond the highest twigs. The Woodpeckers alight by preference on the pole, and while their body is close to it, a man standing at the foot of the pole gives it a sharp blow with the head of an axe, on the opposite side to that on which the Woodpecker is, when, in consequence of the sudden and violent vibration produced in the upper part, the bird is thrown off dead." The Ivory-billed Woodpecker (*Casapichlorus prencipalis*) is a beautiful bird. Its crimson pendent crest is coveted as an ornament for the war dress of the Indian chiefs. Audubon examined entire belts belonging to Indian chiefs, closely ornamented with the tails and bills of this species. He states that the birds were often killed with the gun, otherwise we should naturally have imagined that the blow-tube was the engine which most frequently added the scalp of this magnificent Woodpecker to the red-skin's wigwam.

The Wryneck (*Junc. torquatus*) is not sought after by European fowlers, except for the purposes of the table. I found it in the markets of Northern Italy in the month of October. The specimens I examined were fat and doubtless good eating, unless indeed the flesh of this bird is flavoured with formic acid. Bally affirms that the Wryneck or "Toreol" is often caught by the fowlers of Savoy in the month of September in the nets spread in the open country. Savi tells us that the "Toricello," or "Guscello" of the Florentines, is taken in snare ("Archetti"), and with the lined twigs set to capture Wheat-eaters. Bechstein opines that the "Wendehals," as the Germans phrase the title of this bird—otherwise rendered "Drehhals" or "Natterwindel"—can be taken with snares ("Schlingen") or lined twigs set around its nesting hole.

It does not appear that any member of the Cuckoo family (*Cuculidae*) is much sought after by native hunters. Belon says that young birds of the European Cuckoo (*Cuculus canorus*) are good eating. This may explain the fact of their being occasionally snared and taken in traps ("Gabbiose") in Tuscany in the month of August. Tanara advises that a Cuckoo should be cooked like a Thrush. Mr. Miller Christy discovered in the British Museum a curious document, headed "Bush-lan (Bustel),

Bird of fine Ice Christmas, 1800." In this, the item of "1 Cuckoo" occurs among a variety of birds that were served up to the guests. Perhaps the owner of the ancient hostel of the "Bush" had reared a founselling Cuckoo from the nest the previous summer and cooked it as a surprise to his guests. The tale, at all events, is not more apocryphal than that which Richard relates of another Xmas festival. It is customary, in some parts of France, to burn a large log on Christmas Eve. A family party had assembled in a house at Mel-le-Bard, to join in the celebration of the rite. When the log was thrown on the fire and began to blaze, the guests heard the cry of "Counon, counon," issuing from the log. The wood was taken off the fire and the sparks extinguished. "La surprise, rekonbla, bersqu' on s'aperceut que c'était un counon vivant enfermé dans cette bûche avec une immense provision de blé."

The Rollers (*Coraciidae*) are persecuted on account of their beautiful plumage, which renders their skins valuable to plumassiers. The European Roller (*Coracias garrula*) spends such a small part of the year in Europe, that it but seldom falls into the hands of the fowler. Savi notices the fact that a great number of Rollers visited Tuscany in April 1824, and again in August of the same year. At the latter time great numbers of these birds were captured by the peasants. Savi says that the birds were invariably caught by means of trap-cages ("Gabbieze") and sponges ("Archetti"). The traps were baited with grasshoppers ("Cavaletta"), and set upon the outskirts of woods to catch Sparrows. The fact that grasshoppers proved an attractive fare to the Roller coincides with the experience of Mr Hobson. He informed Dresser that quantities of Rollers are shot by sportsmen in Asia Minor and Turkey during their vernal and autumnal migration. "In the autumn," he says, "they feed almost entirely on locusts and are then very fat." The German fowlers are contented to take the young of the Roller from the nest. Keulemans mentions that the Roller is sometimes taken in Holland in the snares set for Thrushes. But this is an accidental circumstance, and might be said of many species.

The Bee-eaters (*Merysidae*) are too beautiful to escape the attention of those who supply the leather markets of Europe with dried skins. Their extermination is principally accomplished by means of firearms. In some parts of Spain the peasants find that the Common Bee-eater (*Merys apusaster*) inflicts serious damage upon their hive bees. Cetti makes a similar

observation regarding the Bee-eaters which visit the island of Sardinia. Mr Howard Saunders remarks that in some districts of Southern Spain the country people adopt stringent measures to kill the Bee-eaters, which ravage their swarms. Their mode of fowling is to spread a net over the face of a bank in which a colony of Bee-eaters has become established. A trench is cut at some distance parallel to the bank in which the birds are breeding. When the net has been secured in the desired position, water is poured into the trench, and the poor birds are thus compelled to leave their floaked holes. When they emerge from their nests, they become meshed in the net spread over the bank. Rehn observes that when he visited the island of Corsica, he found that the native boys were in the habit of catching Bee-eaters. The device to which they resorted was to attach a Corsican "Cigalle" to a pin which had been bent into the form of a hook. A string was attached to the end of the pin, in order that the fowler might guide the flight of the insect. The Cicada flew into the air, only to fall into the maw of the passing Bee-eater, which at once pounced down upon its victim and was taken prisoner by the bent pin. Savi observes that the Bee-eater is occasionally taken in Tuscany by means of snares fixed over its nesting hole. Mr Charles Hase tells me that the Sumatran Bee-eater (*Micropus sumatrensis*), which frequents the rivers of Borneo is generally captured by means of a snare set over the hole in which it nests. But the splendor of the Bee-eater family is forgotten when we recall the lustrous plumage of the Trogons (*Trogonidae*). Of these the species best known in Europe is the Quetzal (*Phasianoides unicolor*), a native of Guatemala. The earliest account of the Quetzal was supplied by Hernandez, whose remarks are repeated by Willughby: " *Ex Hernandez*, in some pretermitted annotations adds concerning the manner of taking these birds some things worth the knowing: 'The Fowlers (such he) betake themselves to the mountains, and there hiding themselves in small Cottages, scatter up and down hill'd Indian Wheat and peck down in the ground many rods besetted with Barling, wherewith the Birds intangled become their prey.' " (*Ornithology, Appendix*, p. 392). This method was devised to preclude the possibility of any injury accruing to the captured bird. When a Quetzal was caught, it was stripped of its beautiful feathers, and then allowed to fly back into its native forest, where it was expected to renew its lost glory at the next moult. Mr Salvin has given a description of how the

Quezal is lured within shot by those who are able to imitate the cry of the bird. He does not refer to the use of birdlime for capturing this species. The ancient method of fowling has probably become obsolete.

The Kingfishers (*Alcedinidae*) are so solitary by habit, that one might have hoped that their dazzling hues would escape the grasp of the collectors who cater for the milliners of Bond Street. The patience of the Asiatic fowler, unfortunately, overcomes the difficulty experienced in capturing Kingfishers in sufficient numbers to render their extermination a profitable venture. The late Lieut. Barnes, F.R.S., wrote to me from Ahmednagar that the Indian species of Kingfishers are easily caught by the native fowlers. "The man has a wild bird in his pocket, and walks along the stream until he sees a bird of the same species. He then puts up a small net, about 4 by 2, which is lightly propped up by a twig, and on the other side he pegs down his callbird. The free bird hardly waits until the man is clear of the net, when it dices straight down to attack the tethered bird and striking the net, down it falls on the top of him. The man runs up at once, catches the bird, and puts him in his bag. In this way they will clear five or six miles of Kingfishers in a single morning." The species more particularly referred to by Lieut. Barnes is the White-breasted Kingfisher (*Halgania swinhonis*). This bird owes the diminution of its numbers to the commercial value of the beautiful blue feathers adorning its upper surface. Mr Lockwood records that on a certain occasion, when going round his district, his attention was arrested by a patch of cobalt blue on the countryside. When he investigated the phenomenon, he found that several thousand skins of the White-breasted Kingfisher were drying in the Indian sunshams. "They belonged to a couple of hunters who had been prowling about the country, cat-laug the birds in the pairing season. They had a tame decoy, and a net with them, and whenever they found a likely-looking place, they tethered the decoy bird to the ground, and set up their net close by. They had not long to wait before the Kingfisher, which looked on that part of the country as his own, irritated at seeing a rival near, dashed down to punish the intrusion, and being blind with rage, flew against the net, which entangled him in its folds" (*Nat. Hist., Sport, and Travel*, p. 186).*

* Mr J. Davidson informs me, independently, that there is a great commercial demand for the skins of *H. swinhonis*, which are exported, he believes, to China. As an Indian Government official, he had "the satisfaction" of expelling "several gangs of Kingfisher-fowlers" out of districts which he had charge of.

Père David makes a curious statement regarding the Eastern form of our European Kingfisher (*Alcedo cyanea*), which he distinguishes as *Alcedo leucophaea*. The Chinese, he says, actively pursue this Kingfisher in order to secure the brilliant dorsal plumes which are employed in embellishing pretty ornaments for the ladies. They catch the birds by stretching small nets over the water, imitating the cry of the bird to induce it to fly into their toils. The birds are not killed when captured, but are restored to liberty as soon as they have been stripped of their bright feathers. Père David adds, that although this operation must be "unfortunate, au moins fort désagréable pour les martin-pêcheurs," yet the Kingfishers are far tamer in China than in Europe.

The ruse of suspending a fine silk net beneath a bridge that spans some sluggish stream to intercept the Kingfisher, as it darts like a flash of azure through a well-remembered archway, is known to the peasants of most European countries. Tamarac says that the net employed for this purpose by the Bretonese is a "lagon," of the kind called a "Ballastello," which is arranged to touch the surface of the water. Campbell tells us that he saw Kingfishers captured on a stream near Lago Maggiore by means of "a silk fine net." The fowlers extended their net across the river, fastening the ends of the engine to the trees on each side of the river. "The net thus remained tightly stretched across the river, the bottom just touching the water, the upper edge about four feet and a half above it. The trees and bushes overhanging the stream threw a shade on the spot, so that the net was hardly perceptible at a few yards' distance." The fowlers then armed themselves with large poles, and striking a higher point of the stream proceeded to beat the bushes with their poles, shouting at the same time. The Kingfishers which were breeding in the locality hastened down stream, and soon found themselves fluttering in the meshes of the net. The net was then loosened on one side, and pulled to the other, when the birds were taken out and killed (*Life on Noviceandy*, Vol. 1, p. 68). Canon Tristram has shown that the "Halcyon" of the Greek writers, around which so many pretty myths gathered, was not the Kingfisher, but a species of Tern. It was well known to the people of Etruria, who figured its graceful form upon their coins. In Valli passes the Kingfisher over in silence. Olina tells us that the "Pescatore" or "Re Pescatore" is known in Tuscany as the "Uccello Santa Maria o della Madonna," from the fact that its azure feathers bear

some resemblance to the colour in which Italian painters have agreed to depict the drapery of the blessed Virgin Mary. Olinia adds that the Kingfisher can be captured by means of two open nets of the kind called "Baguinele," one of these being suspended at a low elevation, while the other is hung at a greater height, the more effectually to entangle the hapless victim. Numerous writers suggest the use of birdlime to catch the Kingfisher upon the branch or ledge on which it perches. An entertaining note upon the subject is given in the quaint phraseology of Leonard Mascall: "There is a bird which is a great destroyer of all young fry and small fish, and he is called the Kinges fisher, he is about the bignesse of a larkke, and doth commonly becom in fumes, sides of riuers and brookes, in the spring of the yere: his feathers are greene and blew, and he will alwayes haunt about the sides of riuers and brookes, whereas small fish is, and as soone as he hath caught a fish, he will straight way flie to the next bough, and there will sit on a twigge and eate the fish, and so fetch an other. Thus he liueth by the deuouring of all sortes of small fry, such as he may take and carrie away. For to take this birde, they use to marke where his haunt is, and there they set downe a bush or branch, and they putte a busel twigge vnder the said bush or branch: for as soone as he hath taken a fish, he will flie to the next bush and light on that vnder twigge lynded, and so they take him."

The Hornbills (*Bucconidae*) are so widely distributed that we might fairly expect that a variety of devices would be practised for effecting their capture. Nevertheless, the only method of catching Hornbills that appears to be generally adopted is the simple expedient of taking the female bird from the hole in which she has been built up for nesting purposes by her mate. Wallace describes how the natives of Sumatra brought to him a female and nestling of the great Hornbill (*Bucconus buccinus*), which they had extracted from a hole in a tree. A similar account of the habits of the Crowned Hornbill (*Tockus melanoleucus*) was furnished to Layard by Mrs Barber. The South African Ground Hornbill (*Buccon. capr*) is associated in the Kaffir's mind with the superstition that, if one of these birds is killed, a period of wet weather will follow. In periods of severe drought the "rain doctor" orders a "Brom-vogel," as this Hornbill is called from its droning cry, to be killed. The body of the bird is thrown into a pool in a river. "The idea is, that the bird

has so offensive a smell that it will 'make the water sick,' and that the only way of getting rid of this is to wash it away to the sea, which can only be done by heavy rains, and flooding of the river." Another variation of this curious custom is to take a living Hornbill, tie a stone to it, and then throw it into a vley, a rainfall is supposed to follow. The Ground Hornbill is very weak on the wing. When the "rain doctor" requires a specimen the men of a number of kraals turn out together, select a particular bird for pursuit, and then follow it from one hill to another. "After three or four flights, it can be run down and caught by a good runner" (*Birds of South Africa*, p. 123).

Dr Percy Rendall wrote from Fort Johnston, Nyasaland, under date of June 13, 1895 to inform me that about a week previously he had obtained a female of the Trumpeter Hornbill (*Buceros busambanus*) in a living state. This bird had been captured by a native near the village of Livingstonia, which is situated at the junction of the S.W. and S.E. arms of Lake Nyasa. On inquiry, Dr Rendall ascertained beyond all doubt that the bird had been caught by means of badlime. The badlime used in that part of British Central Africa is made from the boiled juice of a species of Euphorbia known as the "Chakalaba Cactus." The glutinous material must be very tenacious to secure the capture of so large a bird as a Hornbill.

The Hoopoe (*Upupa*) are seldom collected by the fowler. In the East a certain sanctity has long been attached to the Common Hoopoe (*Upupa epops*). Unhappily, no such scruples exist in the British Isles, where the first appearance of a stray Hoopoe is a signal for the nearest gunner to wreak destruction upon the hapless stranger.

Neither Di Valli nor Olina describe any methods for capturing the "Bubola," as the Hoopoe is called in Italy, though they remark that it does not thrive in confinement. Tonara suggests that the young of the Hoopoe should be reared from the nest if they are to be kept as cage-birds. He also informs us that a Hoopoe should be cooked like a Thrush. Buliard says that the "Huppe" is difficult to snare. Jackson advises the fowler to ascertain the spot in which a Hoopoe is accustomed to feed. A piece of wood eight inches long is smeared with badlime, and planted loosely on the top of a mole-hill. A thread, to which some living meal-worms are tied, is secured to the extremity of the lined rod. When the

unlucky "Wieschehopf" spies the appetising insects it endeavours to seize them. It therefore becomes entangled in the thread by which the grubs are secured. The lured twig is thus brought into contact with the feathers of the Hoopoe, which falls an easy prey to the expectant fowler.

The Swifts (*Cypselurus*) are rarely troubled by the wiles of the bird-catcher. The Savoyards occasionally capture the Alpine Swift (*Cypselus natter*) in the nesting season by the device of attaching a feather or a morsel of white cloth to a hook. This artificial fly is employed at the end of a line at the riverside, or in any other spot in which Swifts and Swallows love to congregate (*Omnithologie de la Savoie*, Vol. i. p. 230). Savi remarks that the flesh of the Common Swift (*Cypselus apus*) is very tough; hence the old birds are only shot for amusement. On the other hand, the nestlings are excellent and much in demand for the table. As this bird not uncommonly nests in places difficult of access, the device usually adopted in Tessany is to prepare a place in the highest wall of a house, in the top of a tower, or some similar situation for the "Bouchine" to occupy as its summer quarters. The custom is to allow the old Swifts to rear one nestling in each brood. The rest of the family is, or are, removed when sufficiently plump to merit the attentions of the cook. Savi adds that in his day there stood, at a short distance from the Mass di Carrara, a building in the shape of a tower which overhung the Fiume Rigido. This curious building occupied the top of a rock, which rises like a pike out of the bed of the stream. This tower had its walls perforated with holes to admit the Swifts to their breeding ledges in the interior. It had been built for the sole purpose of sheltering the Swifts, in order that their nestlings might be plundered at the pleasure of the owner. Entrance to the tower could only be gained in Savi's time by climbing a crazy staircase.

The Humming-birds (*Trochilidae*) appear to be supplied to the market by those who kill these exquisite creatures with tiny missiles, projected through a blowpipe or a gun. Audubon mentions that he could secure the Ruby-throated (*Trochilus colubris*) with an ordinary butterfly net. Dr. Edward Hassell assures me that the Nootka Humming-bird (*Selasphorus cygnis*) is captured by the Indian boys of Fort Rupert. The method employed is curious. The youths employ twigs coated with the slime of the huge wood slug (which is found throughout the woods of that

region) for the purpose of securing the Humming-birds with the viscous substance.

They catch these aerial gems solely for the purpose of teasing them, frequently threading a horsehair through their nostrils to prevent their escaping.

Mr. E. A. Mearns states that the Rubythroat often gets drunk on the nectar of the flowers of the china tree (*Melia azadirach*). "It sometimes imbibes so much of the nectar that it becomes stupefied and falls from the tree, when it can be readily taken in the hand and offers no resistance. I have also taken them by putting a little brandy and honey in honey-suckle and jasmine blossoms; they readily take this, and become so intoxicated that they are easily caught" (Bendire, *Life Histories of North American Birds*, p. 194).

[The headpiece of this chapter has been drawn to illustrate the Indian method of netting Kingfishers, described at p. 151.]





CHAPTER XVII.—PARROT FOWLING.

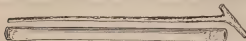
THE beauty and intelligence possessed by the large and widely dispersed family of Parrots (*Psittacidae*) has always rendered their capture an object of desire to the fowler. In modern times an extensive trade has been developed for the purpose of supplying the markets of Europe with the various species of Parrots and Parakeets, which find a popular demand as cage-birds. It so happens that the Parrots which are famous for their linguistic talents are most easily educated when taken young. Thousands of Grey Parrots (*Psittacus erithacus*) are imported to this country as nestlings, having been taken from their native forest by the black fowlers of Western Africa. Mr O. V. Aplin assures me that the Parrots of South America are taken as nestlings and reared by hand. Similarly, Mr Ernst Hartert writes to inform me that, in Venezuela, all the Parrots are taken from the nest when young, both for export and home use. Mr Littlehale reports that the Green Parakeets (*Polinares*) are commonly caged in the neighbourhood of Korofo. He adds that these birds are caught "by tethering a decoy of the same species under a net raised on twigs." Mr H. J. Rainey states that the large Rose-ringed Parakeet (*Polinares torquatus*) of the Eastern Sunderman is much sought after by the natives, as a pair of these birds readily fetch about a rupee in the local fairs on account of their beauty and vocal powers. During the month of June the fowlers go out bird-

nesting into the interior of the forests of the Sunderlan, and take the nestling Parakeets out of their holes in the trees. The broods of young birds are able to leave the nest and fly away in the month of July. These birds then resort to the cultivated tracts, roosting at night on the reed jungle known in the vernacular as "Nal" (*Arundo donax*), along the banks of streams. Vast flocks of these birds congregate in the same place every night, where they remain if undisturbed, before dispersing themselves all over the surrounding country. Consequently they are easily caught in large numbers with birdlime in the following manner:— "Slender sticks of split bamboo, with their upper ends well smeared with birdlime, are placed in those parts of the 'Nal' jungle where the birds are likely to settle for the night, and the next morning the flocks fly away, leaving those of their companions that have been caught with the birdlime to captivity for life. Many are secured in this way, which is evidently profitable, for one such patch of jungle as they frequent (another may be miles away) is leased for this purpose for twenty rupees and upwards" (*Stray Feathers*, 1875, p. 384).

Another Indian method of using birdlime is that of employing a lined twig at the end of a long rod of bamboo, to which one joint after another can be added. Mr. Grove writes to me that the native fowler marks his intended prey in the act of perching on one of the higher branches of a lofty tree. The native creeps under the tree and proceeds to fit up his long rod, which ends in a detachable twig smeared with birdlime. The fowler gradually pushes the rod upwards, until at last he has only to give a rapid jerk to bring the twig against the sitting bird, which thus becomes entangled in the sticky substance provided for its capture, and falls to the ground. Sometimes the birdcatcher carries a rough shield of leaves to screen his person from the observation of the fowl which he endeavours to trap. I imagine that the ancient Greeks learnt this form of fowling from the East. The Romans were also familiar with the device just described, and applied the title of "*Harundo creasens*" to the jointed rod.

Mr. Charles Hose tells me that the natives of Borneo contrive to catch the Blue-crowned Hanging Parakeet (*Leucolais gularis*) and other species of the same family by means of birdlimed tugs, which are inserted among the branches of forest trees. Mr. Hose has sent me a specimen of the native engine for liming birds. The twig intended to be

smeared with the viscous fluid measures about seventeen inches in length, independent of the crutch-handle in which the twig proper terminates. The crutch portion of the reel measures just four and a-half inches. It enables the fowler to handle the twig without any risk of his hands being daubed with the birdlime. The twig is carried in the hollow stem of a piece of bamboo, which measures an inch across, and about eighteen



LINED BIRD TWIG IN BAMBUS.

inches in total length. The bamboo sheath enables the fowler to carry a number of lined twigs in a small compass without any likelihood of the birdlime being brought into contact with foreign substances.

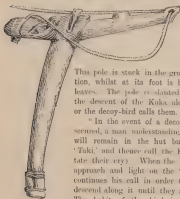
The Uruian Parakeet (*Nymphicus senexensis*) of the Lophy group is sought after for as food by the islanders. Mr Hasfield assures me that this species is frequently captured in a fishang-reel. This engine is provided with a funnel-shaped entrance, after the fashion of an eel-trap. When improvised as a bird-trap, the fish-basket is set upon the ground in a situation which the Parakeets are likely to visit. It is carefully baited with fruit, of which the birds are passionately fond. The birds enter the trap to feast upon the fruit and find it impossible to escape.

In Australia, the variety of the Parrot family is legionary, and many species are netted for the traffic with Europe. The most characteristic plan of securing Cockatoos (*Cacatua*) is to hurl a boomerang or other form of throw-stick into the midst of a large flock of the birds when they are gathering together to drink or to go to roost. Mr Carter writes to me that he has seen the blacks in Western Australia procure the young of Cockatoos and Parrots by thrusting a sharp stick or spear down the hollow tree in which the birds are nesting. He adds: "I have often been enraged by seeing them do this with the pretty Warbling Grass Parakeet, and throwing the hapless young alive on the fire to cook, after pulling them off the point of the spear or stick." The bird just mentioned is best known in England as the Budgerigar (*Myopsittacus undulatus*), one of the commonest cage-birds in this country. Apropos of cooking Parakeets, I ought to observe that the native plan of preparing birds for a meal is, or was, to place the birds intended for that purpose

upon an oven of heated stones, which were strewn with wet grass. Smyth notices that the birds were placed on the damp grass, and covered with it, after which more heated stones were laid on. The entire apparatus was then covered with earth, and the game was stewed in this primitive fashion. Europeans generally prefer to convert Cockatoos into soup to roasting them entire.

The Kaka Parrot (*Nestor meridionalis*) of New Zealand has long been an object of keen pursuit to the Maori fowler. The capture of this handsome Parrot is principally effected by the medium of a decoy-bird. According to Tamati Rannapiri, there are two methods of catching the Kaka. He refers first to the method of snaring these birds by the nose of a cord known as the "Aho." I am indebted to the generosity of Mr W. W. Smith for a specimen of this trap, which he informs me is now rare and difficult to procure. The catch or bar of the trap, which forms the perch on which the wild bird is expected to alight, in order to feast upon the honey of the crimson blossom of the Rata (*Metrosideros robusta*)—for this Parrot loves to suck the nectar with its brush-fringed tongue—measures nine inches and a half. The actual space upon which the Parrot is intended to be nosed measures five inches. These birds fly in flocks to their favourite flowers. Accordingly the first of Tamati Rannapiri's methods is adopted when the flowers of the Rata are in full bloom. The Maori fowler selects a suitable tree, in the branches of which a light stage is erected for his use, as shown in the engraving. The use of a covered hut is also known. In either case the snarer "places himself on the 'tutu' with his favourite bird, which remains on his 'Turuturu' or perch, with his basket of food ('kori') hanging on the perch. The 'Turuturu' is a piece of wood just like a spear as to thickness and length. It is hewed out of maire, manuka, or some other hard wood, in order that it may be sufficiently hard when bitten by the decoy Kaka to prevent its chipping. The 'Kori' or basket is the place for the decoy Kaka's food, it is woven in the same way as a fishing-net. Now when the man ascends to the 'Tutu' with his decoy Kaka, he causes the bird to call out, to entice the others to the place. When the Kaka arrive, they alight on the 'Tumu' of the 'Tutu,' when the cords of the 'Tumu' are drawn and the birds are caught. In accordance with the perfection of the 'Tutu' and the decoy bird, is the number taken. If the 'Tutu' is a bad one, the birds will be shy of alighting on it, but on a good one

they light readily. In the season when the *Rowarewa* (*Knightia excelsa*) flowers, is another time of taking the Kaka by the 'Tutu.' Great numbers of Kaka are taken by this system, sometimes as many as two hundred in a day, at others more or less. The second method of capturing this



MAORI SPEAR.

fine Parrot, described by Tamati Ranapiri, is that of the 'Taki.' The 'Taki' is a long pole, as much as 25 ft. long, more or less, with a thickness of 2 in.

This pole is stuck in the ground in a slanting direction, whilst at its foot is built a hut of tree-fern leaves. The pole is slanted, in order to facilitate the descent of the Kaka along it, when the fowler or the decoy-bird calls them.

"In the event of a decoy-bird not having been secured, a man understanding how to call the birds will remain in the hut built at the foot of the 'Taki,' and thence call the Kaka by his voice (imitate their cry). When the birds hear the call they approach and light on the 'Taki,' whilst the man continues his call in order to induce the Kaka to descend along it until they arrive in front of him. The habit of the bird in descending along the 'Taki' is to turn from side to side, first on one

side of the 'Taki,' then on the other, until it arrives in front of the man within his hut. Immediately the bird turns away its head to the far side of the 'Taki,' it is caught by the man by placing one hand over one wing, another over the other, and he then carries it into his hut. So soon as one is caught it is used as a decoy, and by its cry to call others, directly it has been taught, fed, and accustomed to its perch, with a ring ('Poria') round its leg. It is only very skilful persons that succeed in securing Kaka by this method, because the Kaka is a bird of great sense and very shy; by knowing how to search for a proper place to set up the 'Taki,' and also through the training of the decoy Kaka: by the strength of its cry, by its constant tearing up of the earth,

and by its power of biting anything given to it, will be successful." "The fowler," continues this Maori writer, "goes forth to the forest with his tame Kaka to catch birds with the 'Taki,' the setting up of which is finished, as well as his fern-leaf, tree-leaf hut, and the decoy deposited at the foot of the 'Taki,' close to the hut, one end of the pole being within the hut in order that it may be close to him to incite the tame bird to cry out, and to bite that which is given him to bite. When the Kaka hear from the cracking of the thing bitten, they are deluded into thinking it is some seed in the ground that the decoy is biting. When they look down and behold the decoy digging (with his claws) in the earth they think there are a great many seeds, and directly begin to descend the 'Taki.' The decoy in the meantime is digging away, and biting at his bone all the time calling out. Thus he continues, and soon the Kaka quickly descend the 'Taki' right down in front of the man within his hut. If the bird's head is turned away, he is caught—he does not flap his wings or do anything. Brought into the hut the man treads on his head, and the bird dies while others are descending to meet the same fate." Giller tells us that "the Kaka is particularly abundant in the Urewera country, and during the short season the Kaka is in bloom the whole Maori population old and young are out Kaka-hunting. An expert birdcatcher will sometimes bag as many as £300 in the course of a day, and at Ruatuhuna and Maniapoto alone it is said that from 10,000 to 12,000 of these birds are killed during a good Kaka season, which occurs about every three years." Giller adds that he has known a Maori refuse the sum of £10 for a well-trained call-bird or "Mokai." The means by which the bird is secured to the perch on which the decoy lives is the 'Pouia,' a bone ring or carved enclet, through which the foot of the bird is squeezed, so that the "Pouia" encircles the tarsus. A thong or cord of plaited flax-fibre is attached to the "Pouia," and the cord is also tied to the perch, which is often elaborately carved or illuminated with "Pau" shell. The months of December and January are those in which the Kaka is chiefly snared. When the industry of catching these birds is in full swing, the birds trapped are turned in the ground each day, but when a sufficient number of them have been collected, the bodies of these Parrots are unearthened, stripped of their feathers, fried in their own fat, and potted in calabashes for winter use or for presents to neighbouring tribes. A method of catching these

Parrots (which Tamati Ruanapiri does not describe, but which is figured in the illustrations prepared for White's *Ascent History of the Maoris*) is that of night-fowling. These Parrots appear to roost close to one another, the native, having marked the trees on which the birds are in the habit of roosting. Steals upon them under cover of darkness and seizes his sleeping prey. Several handsome species of Parakeets are found in New Zealand. Buller remarks of one of these, the Yellow-fronted Parakeet (*Platycercus auriceps*), that it loves to frequent the Tutu bushes (*Cornus australis*) to regale itself on the juicy berries of this bushy plant shrub. On these occasions it is easily snared by the natives, who use for that purpose a flax noose at the end of a slender rod. The Kea or Mountain Parrot of the New Zealanders (*Nestor australis*), whose penchant for mutton has given rise to so much correspondence in print, is occasionally trapped in the same way.

That curious bird, the Owl Parrot (*Strigops habroptilus*) of naturalists, but known to our colonists as the "Ground Parrot," is sought after by the Maoris as an article of food. The natives term it the "Kakapo," "Tarepa," or "Tarepa." It is a nocturnal bird of retiring habits. Accordingly, its capture is, or was, effected by fowlers who used to hunt the bird at night with dogs and torches. The late Sir Julius von Haast has stated that in former years the Mariri Plains were a celebrated hunting-ground of the Maoris for this bird. They generally went there on fine moonlight nights, when the berries of the Tutu (*Cornus*), a favourite food of this great Parrot, were ripe, and ran them down with dogs, or even killed them with long sticks upon the Tutu bushes. Another method of capture was to search for the hole of a Kakapo, into which, when found, the fowlers introduced a long stick, to which they had fastened several strong flax snares. Feeling the bird with the end of the pole, they twisted the stick until some part of the bird was caught in the snares, and thus drew it out. "The cry of the Kakapo, heard during the night, very much resembles the gobble of a Turkey." Buller states that a Maori named Ngatorauirangi was a renowned naturalist and a successful hunter of this Parrot. His custom was to lie in ambush near the beaten tracks of these birds, and capture them in the early dawn on their way to their hiding-places.

[The illustration at the head of this chapter explains a Maori method of fowling. It is reproduced by permission from the Journal of the Polynesian Society.]



CHAPTER XVIII.—SPORT WITH THE EAGLE OWL.

THE EAGLE OWL (*Bubo ignavus*) was highly prized upon the Continent in mediæval days. The sportsmen of France used this great owl, as Belon tells us, to lure the Kate down to the plain, in order to fly their falcons at a favourite quarry. In Italy the "Grand Due" of the French became the "Gufo" of the fowler, who also knew it as the "Barbaguanni." The "Gufo reale," or "Diavol de Montagna," as it is called in Lombardy, does not seem to have ever been a common bird in Italy. It is figured by Di Valli, whose bird is represented as resting on a similar perch to the "Gracca," so well known in connection with the Little Owl. The precise purpose for which Di Valli introduced the

mention of the "Gufe" into his work was to describe the use to which this grazel species might be put as a "stake" for Crows and Kites. He illustrates his instructions by giving us a woodcut representing a flock of Crows (or, perhaps, Ducks) alighting on an isolated tree, which is in close proximity to the "Gufe." The decoy tree is covered with long lined twigs, the Crows are deceived by this device, and fall to the ground in confusion. China reproduces the statement of Di Valli, though he omits to quote the very interesting remark of that author, that he had *known* practiced this sport, and knew it to be in vogue at Perugia, and greatly in request in Umbria. China waxes enthusiastic over the sport to be derived from the custom mentioned by Belon in 1555 of hawking the "Nihhu" or Kite with the assistance of a "Gufe." We can well believe that it was a "bellissimus Circus" to liberate the great "Gufe," with the customary fox's tail trailing behind him, as a quarry for the coveted Kite. I imagine that this particular form of sport has now fallen into abeyance, but the "Uhu" of our German neighbours is still an object of interest to Teutonic sportsmen from the ease with which they are able to lure Crows and flocks of prey within shot through its agency.

I am indebted to Mr Ernst Hartert for some interesting reminiscences of the diversion which he found in former years in frequenting the so-called "Krähenhütten" of Eastern Germany.

The trysting-place of the sportsmen is a small hut, well concealed, generally underground; or, for lack of it, a pit in the earth covered with rushes, and provided with holes large enough for the sportsmen to shoot through. The locality selected for a "Krähenhütte" is usually one which commands a good view and is easily seen from a distance. The sportsman, for he hardly deserves the title of Fowler, plants his hut within shooting distance of a tree of moderate height, of which some at least of the branches are dead and withered; failing to find a growing tree, he fixes for himself a tree brought on purpose to the spot. The "Uhu," or Eagle Owl, is perched upon a cross-perch, at a height of about eight inches from the ground. The bird having been carried to the "Krähenhütte" in a basket or dark cage, is chained to its perch. If a live bird cannot be obtained, a stuffed one may be made to do duty in its place, provided that its eyes are not directed upwards, because the wild Hawks easily detect glass eyes and sheer off on discovering the fraud. Mr Hartert assures me that he has shot the Carrion Crow, Rough-legged

Buzzard, Kite, Hooded Crow, and Great Grey Shrike with the assistance of an old, moth-eaten specimen of the Eagle Owl, and likewise with a stuffed specimen of the American bird (*Bubo virginianus*) in Hesse.

But a living decoy is naturally more attractive to the wild hawks, and furnishes greater amusement to the spectators. The latter have to observe a rule of silence and to stay in the hut until the day's sport is concluded. The birds which are attracted in the greatest numbers are Crows and Rooks. If the "Uhu" is set in the vicinity of gardens or on the outskirts of woods, then jays may be shot in great quantities. The Raven hates the "Uhu," and often comes to the "Krahenhütte." Of the birds of prey, the species which evinces the strongest aversion to the "Uhu" is the Rough-legged Buzzard. Accordingly, this species is killed in large numbers in East Germany, where it is common in winter. The Common Buzzard is also a confirmed enemy of the "Uhu." Mr. Hartert tells me that the Goshawk hates the Owl, and sometimes hovers so close over the head of the decoy that the gunner is unable to fire for fear of shooting the Owl. Both the Black and the Red Kites come to the "Krahenhütte," but the Harriers find it less attractive. The Golden Eagle has a standing antipathy to the "Uhu," and swoops down at the captive, putting the latter in great danger, though the Owl knows how to defend himself. Peregrines, Kestrels, Sparrowhawks, and even the Sea Eagles occasionally pay the penalty of their lives for their traditional detestation of the great forest Owl. Nay, even the Great Grey Shrikes, in spite of their small size, find a strong temptation to mob the "Uhu." If spared by the gunner they remain a long time beside the Owl, noisily demonstrating their wrath at the intrusion which their sworn enemy has presumed to make into their territory. Förschell states (*Naturgeschichte des Deutschen Vögel*, p. 550) that the gunner who intends to use a "Uhu" at the "Krahenhütte" should select a male, because, though the males are smaller than the females, they are more vivacious and more observant. It is noteworthy that young birds are of more service than old ones. Young birds, which have never been attacked by birds of prey, are specially anxious, and keep such a keen lookout that the human eye can often detect a bird hovering like a speck in mid air after the attention of the sportsman has first been made acquainted of the fact which the wonderful vision of the Owl has enabled it to manifest in its customary way.

Such young birds ruffle up the plumage to an enormous size, lower the head, and peer intently up into the sky, and snap the bill, while old birds are quite indifferent, and go quite near the hut when the wild birds approach. As the bird of prey comes near, the Owl often raises its head upwards. The Hawk generally strikes at the back of the Owl, and tries to strike it with its claws. It is then that the Owl flies a short distance from the enraged bird, and prepares to defend itself with its talons. Each species of Hawk has its own method of attack. Many dart here and there, up and down, and finally disappear again. Others make vigorous strokes at the Owl, and often sail round in circles with Owl-like flight. The *Sea Eagle*, *Buzzards*, *Peregrine* and *Merlin* attack swiftly and in various ways. The *Red Kite* and the *Honey Buzzard* strike at the Owl with great impetuosity. The *Kestrel* strikes straight down, and then often wheels about. A *Goshawk*, as already remarked, attacks very eagerly and persistently. It frequently hangs so closely over the Owl that the gunner cannot fire without endangering the Owl. The *Goshawk* often perches in the tree, as do the common birds of prey. *Friederich* independently confirms the experience of *Mr Hartert*, that the *Harnes* are indifferent to the "Uhu," and are generally content to leave it alone. An exception to this is to be found only when the Owl is tethered outside the hut in the evening. At that time of day the *Harnes* will strike vivaciously at the Owl, like any other birds of prey. Another method of utilising the "Uhu" is to place it in the neighbourhood of the nest of the *Goshawk*, *Sparrowhawk*, or *Peregrine*. The old birds, of course, attack the intruder, and are then shot by the gunner, who is lying in wait for them. *Mr Hartert* assures me that the interest which this sport has for his fellow-countrymen seems rather to increase than to diminish. There exists quite an extensive trade in Owls, which are regularly supplied from the vast forests of Eastern Germany, Russia, and Hungary, at remunerative prices. Apart from the demand for Eagle Owls to be used at the "Kuchenbrotte," many of these great birds are required for public gardens, which reminds us of an old Alpine story. "A certain fastidious Englishman, sojourning in a remote Swiss valley, and weary of the perpetual trout at his meals, asked the landlord if he could not have some change of diet. Mine host duly supplies a *fricassée de robabille*, which was as duly appreciated. An inquiry by the guest as to its possible stock and origin, in the manifest absence of fowls, brings to light

the fact that it was made of a tame Owl, frequenting the garden of the *châlet*, and henceforward the pet of the traveller in his solitude. Suppressing some natural qualms, the Englishman pityingly says: 'Oh, but why did you kill the poor Owl for me?' 'Sir,' says Boniface, 'we did not kill him; *he died*.'"—*Field*, Sept. 14, 1878.

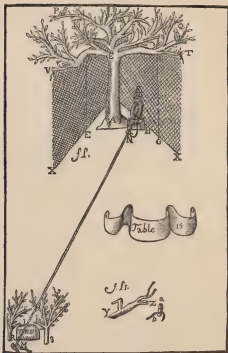
The late Mr A. C. Chapman and I had a somewhat similar experience in the province of Navarre. We asked a young maleteer, who was caressing a young Tawny Owl which belonged to our party, whether he would like to take it home. The youth's countenance beamed with prospective pleasure, as he assured us that nothing could be more in harmony with his wishes, for that as soon as he first saw the Owl he longed to make a meal of it. This is shocking to us, but it is quite in harmony with what Belon has recorded of the capacity of his own countrymen for eating Owls. Nor must we forget that the Maltese at the present day consider the dainty little Scops Owl a savory morsel, and shoot it on its spring migration without any qualms of conscience. Alexander Wilson has left on record the fact that numbers of Grey Owls (*Strix nebulosa*) used to be offered for sale as food in the market of New Orleans. But this is a digression. In the palmy days of falconry in France, the Eagle Owl or "Grand Duc" was in great favour; not that it might be used to enable cold-blooded gamblers to slay high-spirited falcuns at their leisure, as is now the case in Germany, but that the falconers' darlings might strike at the Owl when placed inside their nets.

The best account of the French method of training the Eagle Owl to act as a decoy is that given by the "Solitaire Inventiv" in the third book of *Les Ruses Insouciantes*, pp. 178-184. We learn from this writer that the first step in the education of an Eagle Owl that was intended for fowling was to train the bird to eat on the fist. When this preliminary had been attained, the bird was turned into a room or gallery, in which were two blocks of wood standing two feet from the ground. These were intended for the bird to use as perches. These blocks had their tops cut away so as to form two shelving ridges. A block was placed at each end of the room. A cord as thick as a man's fourth finger ran from one block to the other; to this was attached a second cord a yard long, which was attached to the legs of the Owl. The Owl had thus the power to change his perch at pleasure. At first the two blocks of wood were placed only one fathom apart; but the fowler gradually increased the

distance, accustoming the Owl to fly from one block to the other to be fed. When the "Grand Duc" had been properly trained to fly from one block to the other, the fowler took the bird out in the country as a decoy. He generally used the Owl to lure the Hawks into the centre of "les Amiguës," *i.e.*, perpendicular nets, set at the base of a large tree in an open plain. The "Grand Duc" might also be placed in the centre of a pair of "Rets-saillans" or Clap-nets. If the fowler decided to employ the former method he chose a suitable tree, such as a walnut-tree of moderate size, and trimmed it into the required shape with a billhook, leaving three long arms of the tree as supports for the nets. The nets were made with a lozenge-shaped mesh, and were hung on cords.

The size of these nets depended on the size of the tree, but the length was about six feet on each side of the tree, and the height from twelve to eighteen feet. The nets were placed in the form of two sides of a triangle, leaving the base of the triangle open. The Owl was able to fly from one block to the other, and the Hawk could only attack the Owl on the open side of the tree. The fowler concealed himself at a short distance in a hut extemporised of the boughs which he had cut in trimming the tree into the proper shape. The fowler started operations early in the morning and carefully watched the Owl, knowing that the latter was sure to detect the approach of the bird of prey long before he would see it himself. When a Hawk approached, the fowler gave a tug to the cord which was attached to the Owl, thereby inducing the bird to quit the block on which it was first placed near the fowler, and to take a heavy flight to the block which was placed under the tree. The Hawk saw his enemy in flight, and stooped to attack the Owl. When the Hawk found that the Owl had sought refuge under the tree, he perched on one of the upper branches to take stock of his adversary. After a short pause the Hawk made a dart down at the Owl, with the natural result that he landed in the nets, which extended in triangular form on the two flanks of the Owl.

When the fowler decided to catch Hawks with the Clap-nets (a method which the "Séditane" himself preferred, as obviating the difficulty of finding a tree of exactly suitable dimensions), he provided himself with a pair of the large Clap-nets used for catching Pheasants, and set the nets in an open country. The decoy Owl was placed in the centre of the nets, so secured that it could fly from one block to the other as before. When



NETTING HAYES WITH THE EAGLE OWL (after the same Japanese).

a Passage Hawk spied the Eagle Owl, she was sure to approach the net, that she might attack her enemy. When the Falcon was actually striking at the Owl, the fowler pulled the nets over, and the Falcon or Goshawk was secured within the folds of the "Rets-fallants." The fowler was advised to peg down some live Magpies or Jays within and at either side of the net, as an additional inducement to the Hawk to stoop at the lure. In the absence of the "Grand Duc," a Long-eared Owl (*Asio otus*) might be provided as a substitute.

[The headpiece of this chapter illustrates the sport which medieval falconers enjoyed in hawking with the Eagle Owl. It is reproduced from the first edition of *Ofina*.]





CHAPTER XIX.—SPORT WITH THE SMALLER OWLS

THE Japanese fowlers, like their Indian confreres, are adepts at trapping birds of many species. This object is frequently accomplished by means of a decoy Owl and birdlined twigs. Mr. Griston informs me that the Ural Owl (*Nyctale uralensis*) is frequently employed for the purpose of attracting Jays to the vicinity of lined twigs. This observation refers to the neighbourhood of Yokohama, where Mr. Griston resides. Professor Ijima reports however, that the species of Owl which chiefly finds favour as a decoy-bird with the native fowlers of Japan is the Feather-toed Scops Owl (*Scops scrofacioides*). He adds that other species of Owls are occasionally impressed into the service of the birdcatchers. The decoy Owl is secured to a bamboo perch. The captive rests upon a cross-bar affixed to the top of the main stem, which is planted in the ground in the midst of a copse or other locality frequented by small birds—as shown in the headpiece of this chapter.

Numerous twigs, smeared with birdlime, are placed upon the tops of the surrounding bushes. The fowler ties a string to the perch of the Owl, so that he can rock it to and fro at pleasure. Sometimes he arranges the Owl in such a way that he can pull the bird in and out of some

natural cover. He then hides himself at a distance of fifty or sixty paces, and commences to excite the denizens of the woods by imitating the cries which birds make in mobbing an Owl. He accomplishes this by means of a bird-whistle. He also jerks the Owl backwards and forwards, so that it becomes excited, and thus increases the agitation which the first announcement of its unwelcome presence has aroused in the birds rapidly assembling from all parts of the forest, to mob and, if possible, expel the intruder. The indignant dicky-birds advance upon their common enemy with every manifestation of displeasure. Forgetting their natural caution, many of them alight on the lined twigs and are taken prisoners. This method of catching birds is called "Zukubaka" in Japan.

The beautiful little Scops Owl (*Scops asio*) is well known in the south of Europe, where it is often caught and treated as a pet. The peasants of Tuscany are adepts at imitating the love notes of the male of the "sad Assiolo," with a bird-call. The "Assiolo" is a bird of amorous disposition, and easily lured within range of the fowler. It happens occasionally that one of these lovely little Owls is discovered in hiding among the green leaves of some tree during the hours of daylight. The country fellows adopt a simple ruse for securing the shrewy bird. One man places his hat upon the top of a long nail. A confederate selects a similar nail, and cuts some slits in the extremity, into which he proceeds to insert some lined twigs in the shape of a fan. The first man then slowly approaches the Owl, gently twisting the cap round and round on the end of his stake. While the attention of the "Assiolo" is concentrated upon the approach of the strange object, the second peasant creeps stealthily up to the tree in which the bird is resting, and drops the lined twigs upon its back.

The birdcatchers of Savoy, according to Bailly (*Omnithologie de la Savoie*, p. 176), hold the Scops, or "Petit-Duc" as they call it, in high esteem as a decoy-bird for the "Pipée." Indeed, they prefer it to the Little Owl for this purpose, contrary to the usage of the Italians. The Savoyards consider the "Petit-Duc" easy to domesticate, and apt at luring the small birds within reach of the treacherous lined twigs. The Scops is certainly a much more elegant species than the Little Owl. This fact may account for the preference given to the former bird in Savoy. Elsewhere, the Little Owl (*Athene noctua*) has always enjoyed a marked popularity, in consequence, doubtless, of the quaint solemnity of its

gestures and the docility of its disposition. The Athenians chose this bird as the emblem of the divinity that watched over the fortunes of their city, while the country folk employed it as a decoy for the fowler. But it is in Italy that the "Civetta" finds the warmest appreciation. Journey where you will throughout the length of Italy, it is certain that you will find the "Civetta" a universal favourite. The title which it bears varies very little. The name becomes slightly modified, as "Sanguetta," "Sota," "Zivetta," "Marugella" is its name on the island of Elba, while at Malta it becomes the "Qogga" or "Kokka." But the title of "Civetta" is that which many generations of Italians have adopted to designate this Owllet. The diminutive form "Civettazzi" has come to signify "*a little dear*." Crescenius mentions that this bird is employed by fowlers with both nets and lardline. It is to Agnolo Firenzuola that we owe our thanks for a dainty poem in praise of a beloved "Civetta." The poet mourns that the yellow eyes of his favourite have closed in death. The riddles which he had shared with his pet in the endeavour to capture Redstarts along the hedges, and the game with which the little bird was wont to ascend to and alight from the perch, are dwelt on with plaintive regret. Boccaccio devotes the 24th stanza of his *Decamerio* to the Little Owl. He warns us that it is undesirable to train the male of this species for bird-catching. It is for the female that his admiration is reserved. She it is of whom he sings "Ti servirai con sua ammal' arte." It is the female therefore which, trained in the cottage of the fowler, learns how to sit upon the perch, and how to hop to and fro in such a way as to attract the attention of the ducky-birds. She shakes the head, cranes the neck, and withal performs such ludicrous antics as are best calculated to denote the indignation of the scolding small fry. Aldrovandus, in his turn, emphasises the fact that the "Civetta" is made use of by the fowlers in two different ways. The first is to set the "Civetta" in the centre of the Clinquets, so that when the little birds mob the Owl the fowler can pull his nets over them. The alternative is the plan of setting a "Civetta" (or, in default of it, *the head of a cat*) in the centre of a number of long lined twigs. The small birds try to mob the "Civetta," and of course some of their number perch on the lined sticks. Olina tells us that the "Civetta" ought to be fed upon meat. Savi remarks that the "Civetta" which is intended to act as a decoy, or "*fare i ritornelli*," as the Italians say, should be taken from

the nest and reared by hand. In the plains of Tuscany the "Civetta" commonly rears its young in the roofs of cottages. The birds which are found in holes in trees are less appreciated than those taken from the vicinity of houses, being regarded as unlucky, and as having more than usually fragile and brittle feathers. In some parts of Tuscany the Little Owl is often captured even when adult, either to serve as a decoy or as food, since the flesh of the Little Owl is considered delicate and savoury. The fowler who aspires to obtain adult specimens of the Little Owl starts in the gloaming for some little valley which is devoid of trees or bushes, although surrounded by wood, and not removed far from the neighbourhood of houses.

When the peasant reaches the centre of the intended scene of his crepuscular foraging, he proceeds to set up a post to which a number of lined twigs are attached. He then stretches himself under whatever natural cover he can take advantage of, and begins to imitate the cry of the "Civetta." All the Little Owls in the vicinity soon begin to fly around; as they flit past the post, which stands in the open ground, they come into accidental contact with the lined twigs, and are taken one after another. The late Dr Wilson of Florence informed me that a great fair of decoy-birds is held every year on the road outside the Porta Romana of that city. Professor Giglioli tells me that the day set apart for this transaction is the 28th of September. The vicinity is then thronged by an animated crowd of fowlers of all ages, desirous of trafficking in caged songsters and the various adjuncts of "La Caccia degli uccelli." On this occasion a great many tame "Civettas" change hands. For it must not be imagined that the use of the "Civetta" is limited to the capture of live birds. It is used in a diversity of ways. Not the least important service which the "Civetta" is called upon to render is that of luring Skylarks within gunshot. Italians and Frenchmen are much devoted to this so-called sport. When the "Civetta" is required to assist in the diversion the bird is placed on a circular perch or roller, which is mounted on a rod, formed of four separate pieces, which fit into one another like the sections of a fishing rod. The first joint is armed with an iron point, so that it may be inserted into the ground. The rod is steadied by three cords. These are attached to the base of the fourth joint of the rod, and are moored to the ground by means of pegs driven firmly into the earth. The Owl's perch, or

"Mazzuolo," is furnished with a steel spring, and is made to revolve by means of a long cord. When a flock of skylarks arrives within two or three hundred metres of the sportsmen, the attendant pulls the string attached to the Owl-perch; the "Mazzuolo" revolves, the "Clivetta" shakes its wings to steady its body, the larks stoop at the Owl, and the gunners shoot the Larks. The Little Owl is used as a decoy to attract small birds in France, where it is called the "Chewiche." I have not satisfied myself that the "Steinkauz" is used for this purpose in Germany. Bechstein and other German writers direct us to catch the Little Owl by the simple expedient of placing a bag-net over the entrance to the hole in which the bird is found to spend the day. In Holland the use of the "Steinkauz" as a decoy is very common. Mr W. Bridger informed Dwyer that the Dutch plan of catching the Little Owl, when mature, is to peg a live mouse down to the ground in the proximity to its nesting haunt. A branch consisting of three slender twigs all sawn with birdlime is then set in the ground in such a way that the Owl cannot seize the mouse without coming into contact with the birdlime. The Dutch fowlers employ the Little Owl as a decoy by securing it to a low perch, allowing the Owllet freedom to hop about at the end of its leash. A couple of sticks, each bearing a lined twig inserted into a small cleft are placed in front of the Owl. Mr Bridger caught Redbacked Shrikes, Yellowhammers, Tree Pipits, and other field birds in this way. Mr J. G. Keulemans incidentally confirms the opinion so long ago expressed by Burchens that the male of this species is an inferior call-bird. It is smaller than the other sex and more distinctly spotted, as well as generally of a darker colour; but the cause of its inferiority as a decoy lies in the fact that it is more shy and retiring than the other sex. The coyness of the male renders it loth to sit quietly on its perch, since it is ever trying to find a hiding-place. Lloyd remarks that Tengmalm's Owl (*Nyctala Tengmalmi*) is employed as a decoy for little birds in some districts of Scandinavia. The Owl is tethered on the ground in the centre of a circle of lined twigs. The fowler hides behind a tree, and makes a chirruping noise to bring the wild birds to the spot. At first the Owl is viewed with apprehension, but familiarity breeds contempt. Before long the excited birds alight on the lined rods, and so lose their liberty. Lloyd does not suggest how Tengmalm's Owl is captured, but we know independently that it is easily snared. Gollwieski states that

the Siberian hunters detest this Owl on account of the frequency with which it falls into the snares which they set for sable and other fur-bearing animals. The practice of taking small birds with a decoy Owl is not confined to Europe and Japan, for it is well known in some parts of India. The Spotted Owlet (*Athene brunn*), the best known of all the Indian Owls, lives in gardens and is commonly found breeding in the roofs of houses. Jordan tells us that some Shikares utilise this Owl for fowling. The man first snareman thicket, or catches it with birdlime and a long rod. Having secured the Owl, the native betakes himself to that part of the jungle in which the birds that he wants are to be found. There arrived, he ties the Owl on the ground near some low bush, which he smears with birdlime. As soon as the little birds spy the Owl, they hasten to mob the intruder, with the inevitable sacrifice of their liberty (*Birds of India*, Vol. I, p. 143). In this connection mention must be made of another Indian species, the Mottled Wood-Owl (*Syrnium nebulosum*). It is a larger bird than the Tawny Owl of Europe, and frequents mango-trees and the large trees about villages. Mr Harold Littlehale informs me that this Owl is common near Ranchi, where it is known to the natives as the "Ghar," a title suggested by its dusky-hair cry, which may be rendered "Ghar." This bird is required by Hindoos for medicinal purposes. The tongue of the bird is the portion of its body used as a specific. This Owl is accustomed to prey on small mammals, such as mice, rats, and squirrels. The capture of the Owl is effected by means of snares. Mr Littlehale has been kind enough to procure me a set of the snares in question. The complete set consists of twenty-eight separate snares of black horse-hair. Each separate snare is formed of two stout strands of plaited hair, forming a running noose with a diameter of about three inches. Each snare is carefully bound to a flat, vegetable stem measuring about three inches, and is secured in its place by coarse cotton thread, which is wound round and round in such a way as to give a firm support to the snare which it bears. The snare being thus mounted, it is next secured to a wooden peg, measuring from five to seven inches in length, and having the lower end sharpened, to facilitate its insertion into the ground. A notch is cut on the inner side of the upper end of the peg, thus enabling the fowler to attach his twenty-eight pegs to a single long cord, the interval left between the pegs being about six inches. A small wedge is inserted into the cotton thread to

tighten the attachment of each noose to its supporting peg. When the native has arranged his snares on the long line, some care is still required to prevent the nooses from being twisted or otherwise injured in transit. The fowler therefore selects a sound piece of cane and twists the upper part of it into the shape of a circular noose about five inches



INDIAN OWL SNARE.

in diameter, leaving a bare stem of about six inches as a handle. This loop is then placed in sandwich fashion between the snares, fourteen of these being arranged on each side of it. The whole series are then bound in the proper position by the free end of the cord to which the snares and their accessory pegs are bound. The loose end of the cord in question measures about six inches, and is intended to serve a further purpose. When evening arrives the fowler sets out for some spot which he knows to be frequented by Owls. There arrived, he selects an open patch of ground, such as would afford no cover to any small animal. He then proceeds to peg his snares out in a circle, and completes his operations by attaching the free end of the cord to a live mouse. The mouse runs round the centre of the snares, endeavouring to make his escape, and soon attracts the notice of some hungry Owl. The Owl stoops noiselessly at his victim, and is pretty certain to find himself caught in one or other of the snares. The use of the Owl for medicinal purposes so-called recalls the fact that when Surgeon-Laet-Vol Scully visited Turkestan he found that the "Chaghmadak" of the natives—which signifies an Eastern desert form of the Little Owl, known to naturalists as Hutton's Owllet (*Athene bairdiana*)—was much in demand, in order that its flesh might be mixed with other ingredients of a medicine supposed to be a certain remedy for a serious disorder (*Stray Feathers*, p. 130). In the Yukon district of Alaska the Esquimaux use the liver

of the Short-eared Owl (*Nisus nocturnus*) as a "beavanda amerosa," or love philtre. The liver of the "Mung ku che wuk" or Owl is dried and powdered and administered in food to the lady or gentleman whose affection is sought. Mr Turner tells us (*Nat. Hist. Alaska*, p. 161) that he knew a native who sought to regain the love of his wife through the medium of this potent remedy. unfortunately the beneficent action of the charm was in that instance thwarted by the counter influence of a mother-in-law.

[The headpiece of this chapter depicts a Japanese Fowler engaged in capturing small birds with the aid of a sleepy Owl.]





CHAPTER XX—EAGLE-LORE

A LARGE amount of ingenuity has been expended by men of widely different races to encompass the destruction of birds of prey. Thus the goatherds or 'cabaeros' of the Spanish sierras are only too ready to blame the Bearded Vulture (*Agresta barbata*) or 'Quehuantahuesos' for the loss of any kobs that they may miss, and to devise the chase of that magnificent bird. Godlewski tells us that when he passed through the Siberian villages of Touransk and Changinsk, situated on the upper part of the river Irkout at the foot of the Tomka range, the bulls of which are bare and puerile, the hunters of the district assured him that the Lammergeyer or Bearded Vulture inhabited the neighbouring mountains, and that they found it easy to catch these great birds with the aid of pebbles of such a size as the birds could swallow. The method of the fowlers was to steep a quantity of these pebbles in blood, and to pile them in a heap in a place where the Bearded Vulture would be sure to find them. The bloody gore with which they covered the surface of the stones induced the Vulture to swallow the stones. This heavy meal so indisposed the bird that it became heavy and unwilling to take wing. Whether this tale has a solid foundation in fact, or whether it was intended to impose upon the credulity of the traveller, is a point upon

which the public can form their own opinion. The name of the bird in the locality just mentioned is "Jella." This species is met with on the frontiers of Mongolia, and the Pekinese call it the "Suck-lau-tian," which means "the house-swallowing Eagle." The Chinese employ the tail of the Bearded Vulture in the manufacture of costly fans (*Parasourale*, *Revue Ornithologique de la Sibirie Orientale*, p. 9). In this connection mention must be made of the large Spotted Eagle (*Aquila clanga* of Pallas), which the Chinese call the "Hong-chou-tiao," or "Eagle of the yellow rats," because it feeds on members of the genus *Rattus*, and other small quadrupeds. Mr R. T. Turley informs me that the province of Manchuria has to forward annually to Peking, as a tax in kind, three hundred skins of these Eagles. The reason of this is that the tail feathers of this Eagle are much in request for manufacturing fans for the mandarins. A good single tail feather is worth two shillings or half-a-crown. The quills of the wings are likewise valuable, since they are employed in the manufacture of the celebrated Manchu arrows. The annual tax of three hundred and sixty Eagle skins is made up almost entirely of the examples of the present species, though a few of the skins, Mr Turley thinks, may belong to the Golden Eagle. The mountains at the extreme end of the Lin-tung Promontory, S.W. of Port Arthur, are or were kept as an Eagle preserve. The Spotted Eagle resorts thither in numbers at certain seasons, especially in winter and early spring. Other mountainous tracts are also Eagle preserves. Living Eagles are employed as decoys, and nets are set for the capture of the wild Eagles. When a free Eagle alights beside the decoy, the fowler pulls the cord which holds the net, and this falls over the roosting stranger, which, of course, remains a struggling prisoner. Mr Turley tells me that the capture of this Eagle is not by any means confined to mountainous districts; it is caught likewise on the plains, both for the sake of the valuable plumes and also because these birds destroy so many lambs and small calves. Some of these birds are kept for many years in confinement, and their tail feathers are annually plucked and sold, but the plumes taken from these tame birds are less valuable than those of the wild Eagles, as they are not so fine in quality. It does not appear that the Chinese use the flesh of Eagles as food. Helen tells us that, in China, the young Vultures were taken from their nests in the precipices near Pimormas, and prepared for the table, the natives esteeming them highly and comparing them to

capons. It is only fair to add that they rejected the flesh of the old birds because of their feeding on carrion. Belon (*Histoire de la Nature des Oiseaux*, p. 56) favours us with quite a long disquisition upon edible birds. He recalls a tale of Boreasie by assuming us that he has it on the word of good falconers that the flesh of Falcons and Vultures is palatable when these birds are roasted or boiled like poultry. Certainly the exquisite taste of Longfellow has enshrined for us in graceful measures the fate of the "Falcon of San Federico." It is a well-known fact, too, that the Honey Buzzard is shot and eaten on its vernal migration by the rural sportsmen of Calabria.

The Highlands of Scotland long enjoyed the reputation of affording many secure fastnesses to the Golden Eagle (*Aquila chrysaetos*) and the Sea Eagle (*Aquila albicollis*). My own imperfect researches have clearly demonstrated that the latter species occupied several eyries among the precipitous mountains of the English lakes up to the close of the eighteenth century. In the course of the last fifteen years I have conversed with many shepherds and other persons intimately acquainted with the habits of our native Eagles, but I have never been able to hear of any devices that were used for the capture of these noble birds in the nature of ancient traps or snares. The Eagles of the Lake district became extinct through human agency. One chief element of destruction was the custom of the more daring mountaineers of taking the Eagles from their nests before they were able to fly, by means of ropes with which the raiders descended to the eyries. An old shepherd who recently died in the island of Skye, and who, perhaps, accounted for the deaths of more Eagles than any other man in the Hebrides, told me with great satisfaction that he once killed five Eagles in a single day. This event, which was unique in his experience, took place in the island of Rum in the year 1825. He was then a young and active shepherd lad, ignorant, as he remained to the end of his ninety odd years, of a knowledge of English, but keenly intent on destroying anything in the shape of a bird of prey. On this memorable occasion Macdonald (for he belonged to that clan) went alone to the precipices which overhung the shelf of rock upon which a pair of Sea or White-tailed Eagles were endeavouring to rear their young. After some hours of watching he succeeded in shooting both the female and the male parents. He then lowered himself into the eyrie by means of a rope which he had secured to the rocks above.

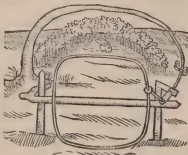
To his surprise he, for the first and last time, found *three* Eaglets in the eyrie. The birds were young, and he secured all three without difficulty. He managed to return in safety to the top of the cliff, and went home to his shepherd's "stance" not a little elated at his achievement of having slain five Eagles in a single venture. In later years he shot many Eagles from inside a "booby" on one of the green hills in the west of Skye. The birds were allured to the spot by the carcass of a dead sheep. His muzzle-loader was charged (as he told me) with "R.B." shot, the letters "R.B." being the only approach to an English word that I heard him admit the knowledge of. But he never but once in the course of his life, which did not fall far short of a hundred years, killed five Eagles in one day. Of equal interest is the testimony of Angus Macleod, a native of Harris, who was employed for many years as a shepherd at Kinloch, Isle of Skye. When I met this man in July 1896 he was in his 104th year, but was able to undertake a six mile walk along, and retained all his faculties intact. He remarked to me that he believed that he had personally killed more Eagles than any man of his acquaintance. About sixty years ago (= 1836) he destroyed a large number of Eagles in Park Deer Forest, Lewis. He killed some "black" (= Golden) Eagles, but the bulk of the birds which he shot were "grey" (= sea) Eagles. He volunteered that the latter species frequently captured sea-fowl. He had seen the birds plunging into the sea in pursuit of their prey. The greatest number of Eagles that he ever killed in a single year in the Lewis was thirteen birds. He received five shillings for every bird which he destroyed. His custom was to shoot one of the old Eagles in the vicinity of the eyrie when the birds were engaged in the duties of incubation. He first climbed down to the ledges near the nest with the aid of a rope. He then shouted loudly to scare the sitting Eagle off the nest. As soon as the old bird appeared he fired his muzzle-loader at her. His next task was to try to burn out the young birds. This unhandsome proceeding was usually accomplished by thrusting a pole covered with an old bag or other combustible material, smeared with tar and set on fire, into the midst of the eyrie. Sometimes the young birds were suffocated in their eyrie, often they tumbled out of the nest, and were afterwards found by Macleod at the foot of the precipice in which the eyrie was situated. One of these Eaglets was kept as a pet; it fed readily on fish and mutton. Indeed, Angus had several tame Eagles at different periods

of his life. He had in later years trapped a good many Eagles in Skye. These birds were taken in steel traps. He usually baited an Eagle trap with a piece of sheep's liver, and was careful to set it at the side of a hulk, usually on a small point of land. The bait was deposited on the ground between the trap and the water, so that the Eagle could not reach the carrion without entering the trap.

Sea and Golden have frequently been surprised by shepherds after the birds had gorged themselves with "bannock" mutton. One of a pair of Sea Eagles which used to nest in the rocks of Ramasing, on the west coast of Skye, was captured some sixteen years ago by a lad named Maclean, who afterwards became a shepherd in the Falkland Isles. He observed that the Eagle had gorged itself to repletion upon the carcass of a dead sheep. He contrived to scramble up the face of the rocks, and so reached the crag upon which the drowsy bird was resting. There arrived, he threw his plaid around the bird, which he managed to overpower. On another occasion the same individual observed two Golden Eagles fighting together. It was the spring of the year, and no doubt one of the birds had invaded the territory of a rival. The birds closed in the air, and fell to the ground before they could recover themselves. Maclean and his collie gave chase. The birds had descended into a natural hollow on the hill. It was a very still day, and there was no breeze to give the big birds assistance in rising off the ground. One bird managed to get on the wing. The second was seized by the dog, which gripped it with such firmness that he was able to detain it until his master completed its capture. The bird was sent to a gentleman in Oxfordshire, in whose possession it lived as a captive. I had these details from the lips of Maclean, who is a son of one of my own small tenants. In Greenland the Sea Eagle used to be pursued with bow and arrow. Another device was to dig a hole in the snow in winter, and bait it with flesh. A snare made of seal-skin or whalebone was arranged around the bait. The fowler himself concealed his person in the hole, holding in his hand the free end of the snare. When the Eagle sought to swallow the bait it was caught by the noose, which the fowler at once drew tight. At other times the birds were permitted to gorge themselves until they became so stupefied that the fowlers could knock them down.

The most curious instructions for vermin-catching known to me are contained in Leonard Mascall's *Book of Fishing*. The first of these is

"A spring for a Buzzard or Dun Kite." I cannot do better than reproduce it in the quaint language of the original.—"This engine is called a whippe-spring, made and set to take Buzzards and Kites, and commonly set by a bush side; it may also be set in a plaine; the spring must be of some growing pole, or some roble set fast in the ground where ye thinke best. There is also two stakes set halfe a yard asunder fast in the ground, and that stake with a crooke must stand towards the loose of the spring, and tild with a clicket, which clicket above must stay under the crooke; and the neather end thereof must stand in the nicke of the end of the bridge, which hath a hookes at the other end about the other stake, which bridge must stand three inches from

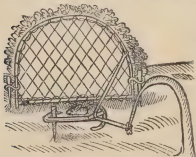


A Whippe Spring (after Mascard).

the ground, and thereon spread your line as ye see, with a shewe buckle to shole some. Then hante your bush side made somewhat hallow that she can come no way to the baite but over the bridge: which hante may be a Conies head, or some cats flesh."

The Common Buzzard (*Buteo vulgaris*) is now chiefly restricted to the more mountainous districts of England, but I imagine that it must have been to be seen circling over most of our commons in Shakespeare's day. My reason for thinking so is this, that I have found the Buzzard a very common bird in different parts of Germany and France, and even Spain. As it feeds on rats and voles, lizards, and other small and numerous animals, it ought to be able to find a plentiful subsistence in most parts of England. It is quite as natural for this Buzzard to rear its young in a tree as in the side of some overhanging precipice. But, be this as it

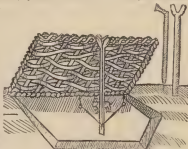
may, there can be no doubt of Mascall's close acquaintance with the bird, as well as with the now banished Kite (*Melurus infans*), which at



A Hoop Net (after Mascall).

light flocks of fern being placed in front of it.

reader would find more amusement in Mascall's description of the "trappe," or "fall," for "Bazards and Kytes, with a hurdell." The fowler is instructed to set a hurdle on the ground, resting on a forked stick, which rests in turn on a second fork. The latter is kept in the desired position by means of two threads, which are



Fall for Buzzards (after Mascall).

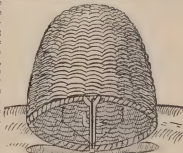
secured also to the ground, apparently with small pegs. When a Hawk

one time was the scavenger of the London streets. Mascall describes no less than four other devices for catching Buzzards and Kites. One of these is a "hoop net," intended for catching Buzzards in winter. It was to be set in a plain or open space. The net was to be concealed from the prying eyes of the bird of prey by some

tries to seize the bait placed under the hurdle, it alights on, or at any rate dislodges, the second forked stick, which is supporting the first; the hurdle naturally falls over the bait. The "Basket Fall" consisted of a framework large enough to allow a man to stand inside. It was supported in precisely the same way as the hurdle. "The Warriors do commonly in some places use (un-fledged time) to set him in plains, in warrens, and in parks, whereas Cunnies are bred, and so they take the Kye and the Buzzards in this Basket."

Mascul tells us that the Red Kite is proof against drugged meat, because, instead of digesting the poisoned meat, he casts it up again. — I

do not find that the Italian writers give any elaborate instructions for catching Kites. Savi says the bird was common in Tuscany in his day, and refers to the use of the Kite as a quarry for falcons. Olinatelli as that the Kite can be taken with a snare arranged to cover a piece of meat, which is transfixed by a wooden skewer, in such a way that the Kite



Basket Fall (after Mascul).

throws the snare over his neck in his endeavours to bolt the meat. Mr Styan tells me that the Indian Kite (*Milvus forficatus*) is taken by native boys in the following way:—"A bait is placed on the ground under a line line; no hooks are used, but the bird, rising vertically with its prey, strikes the line with the back of its neck; the wings are thrown up, and in struggling the primaries get over the line, and the bird is hopelessly caught."

A great number of raptorial birds are annually killed in Scandinavia. The methods employed for compassing their destruction are described in Lloyd's *Game Birds and Wild Fowl of Sweden and Norway* with a fulness which leaves nothing to be desired. The trap which Mr Lloyd considered

to be commonly used for the capture of hawks is called the "Hok-Bar." It appears, from his description, to consist of a large square frame divided into two compartments, and mounted on a stout post of four feet in height. The lower compartment serves as a cage for a decoy fowl or pigeon, and the sides of the frame are netted. The trap is left open at the top, but a spring net is arranged to descend and cover the trap as soon as a Hawk alights on a cross-bar.

Before closing this chapter, let me call attention to an interesting iron trap which has been brought to my notice through the kind inquiries of Mr C. F. Archibald. Mr Oliver Baker, whose country enables me to figure this engine, informs me that it was dug out of the ground in the



neighbourhood of a grand old mansion in Warwickshire—namely, Alcester Salford Hall. He informs me that the Rev. T. R. Hewitt, who possesses a special knowledge of old country life, has pronounced this curious specimen to be a pole-trap, intended to catch Hawks alive for the sport of falconry. This decision is supported by the absence of serrated teeth. There is also an iron socket, apparently intended to receive a piece of wood, upon which a Hawk might alight. The diagram shows this trap both set and closed. In the set trap, the rings by which the trap could be secured to a pole or the natural branch of a tree are well shown. One can imagine that such a trap would be useful for catching the sparrow-hawk or any other species of medium size. This trap measures eight inches in length; the breadth of it, when expanded, is five inches. It was sprung, of course, by the weight of the bird.

[The headpiece of this chapter is reproduced from the *R. Falconiere* of Tuam.]



CHAPTER XXL—HAWK-CATCHING.

WITH us in the Western Highlands, the return of spring witnesses to the destruction of many beautiful Peregrines (*Falco peregrinus*). These adult birds are trapped by the feet or shot in the neighbourhood of their nesting ledges. On the other hand, the Vulturine Hawks are all captured in the *fall* of the year when migrating to the south from more northern breeding-grounds. Mr Ronald Mollen writes to me that he has not kept a return of the number of *Falco* taken by his family, but he is certain that more than two hundred birds have passed through their hands in the last decade. In the autumn of 1895 the weather was at first very unsuitable for the work of the Hawk-catchers, rain and fog preventing their working their nets with much success. Twelve red falcons and three tierrels were the nett result of the entire season. Mr Mollen was unable to supply all the tierrels for which he had received orders. The tierrels or male birds are generally the first birds on the passage. Mr Mollen conjectures that the birds part company in foggy weather. The actual capture of the birds is effected on the open moors which command the fly-lines of the Peregrine and other Hawks. The hut in which the falconer awaits the arrival of the falcon is mound-shaped: partly excavated out of the soil, partly built up with sods of

heather. The diameter of the hut inside does not exceed five feet. Two fir poles, measuring from sixteen to twenty feet in height, are inserted as uprights in the ground about fifty yards in front of the hut. A strong but light line passes to the hut from the summit of each pole. These lines when slackened pass down the poles and run along the ground until they enter the window of the hut. The right-hand pole is required for the use of a decoy Peregrine. This bird is attached to the line which travels from the top of the pole to the hut. A bunch of feathers is attached to the Peregrine's line on the side nearest to the hut. The left-hand pole is required for the manipulation of a tame pigeon, a white bird. This is attached with a short line to the cord which runs from the top of the pole into the hut. The decoy pigeon is thus enabled to take refuge in a small shelter built of heather sods, should occasion require. Other shelters or cages for pigeons are built of sods, and placed at either side of the hut, and in the rear if needed. The birds thus imprisoned in these shelters are secured by braces to lines which run to the fowler's hut. A Bow-net is pegged down a few yards on the inside of each pigeon-cage. These nets are hidden with heather. The fowler's outfit is completed by a couple of Great Grey Shrikes. These birds are tethered to two little mounds of heather immediately in front of the fowling hut. When the Shrikes detect the flight of a wild Hawk at a distance, they scream, flutter, and seek refuge beneath their perches. When the wild Hawk draws nearer, the fowler hoists the decoy Falcon in the air by drawing tight the line attached to the top of the pole on his right hand. As the falcon circles round and round at the end of the line, and the bunch of feathers tied to the line flutters in the air, the stranger is deluded into mistaking the decoy Hawk for a wild bird which is flying a quarry. The falconer suddenly drops the right-hand line, thus allowing the tethered falcon to return to the ground. The white pigeon is hoisted at the same moment, and the strange Hawk starts in pursuit. Suddenly the white pigeon is dropped, its place being taken by one of the pigeons set loose from the huts beside the Bow-nets. The released pigeon flies up into the air, only to be cut down by the Passage Hawk, which binds to its prey and alights on the ground a few yards from the Bow-net. The falconer then drags the dead pigeon towards the Bow-net, which is finally pulled over the falcon.

The method of catching Passage Hawks, which is still carried on at

Valkenswaard, may probably owe its origin to a simpler plan of operations described by a Greek writer, Demetrius of Constantinople. He was physician to the Emperor Michael Palaeologus in 1270. Demetrius instructs the fowler to leave home at the time for catching young Hawks, and to repair to the tops of the mountains and search for the young Hawks, using a bird-call made of cherry-tree bark to imitate the cries of the old Hawks. Having ascertained the whereabouts of the young Hawks, the fowler selects some open spot, in which he builds a low hut covered with green leaves and furnished with a window, out of which he can watch. The fowler then goes in search of the young birds, and endeavours to call them up to the hut, close to which he tethers a pigeon or a fowl. He then holes in the hut. The wild Hawk soon spies the pigeon or chicken, and of course strikes at her quarry, which she kills. But at this critical moment the fowler pulls the string by which the pigeon is secured; the Hawk finds that her victim is escaping, and holds on all the more tightly to her prey. She is soon drawn up to the entrance to the hut, when the fowler deftly slips his hand out of the window and secures her. The fowler is instructed that, if he finds that it is difficult to decoy the young birds while their parents are at liberty, he must capture the old birds, and keep them until their nestlings are starved into following the whistle of the fowler, which lures them up to the hut at which the decoy pigeon is tethered (*See Accipitrarius Scriptores*, pp. 2-6). When the young birds have been captured the old Hawks are released, in order that the breeding stock may be kept up.

Modern falconers usually prefer the Peregrine to the Iceland Gyr-falcon (*Falco islandicus*). In earlier days the latter birds were held in the highest estimation at the courts of Europe. Even the Barbary Falcon (*Falco barbaricus*) used to be imported into Britain, although the conservative taste of Englishmen did not encourage such innovations in their practice of falconry. Sir Edward Winter of Lydney, Herefordshire, wrote in November 1595 to Sir Robert Cecil: "Your Barbary Falcon I received, which if I should praise very much, you would rather commend me for a courteous knight than a skilful falconer. But howsoever I thank you for her, though I think she be dead ere this. The tussell of a goshawk had been fitter for our woodland country" (Salisbury MS., Vol. v. p. 479). But the Gyr-falcons of Norway and Iceland commanded high prices. Hornebow furnishes an entertaining account of the latter

bird. "Some are white," he observes, "some half white and half grey, but they are all of the same kind, and sometimes in one and the same nest a young one of each colour has been hatched. This the inhabitants have declared to me, and I dare say there is hardly a falcon-nest in the island without being known: for every falcon-catcher in his district takes care to watch them closely, and to place his nets pretty near the place where they build. . . . The king of Denmark sends every year a falconer with a couple of attendants to Iceland, to buy up the falcons. They go to Reffestad, where the king's falcon-house is, but it is not their business to catch them: for in every district there is a certain number of people licensed for this purpose. They are all native Icelanders, and get by it a pretty deal of money, when they are successful. It is about Midsummer that the falcon-catchers bring what they have caught to Reffestad. They come on horseback, holding a pole with another fixed across, on which ten or twelve falcons will sit all copped: the pole they hold in their hand, and rest it on the stirrup. The falconer's business is to examine them, to return those that are not good, and send the rest on board the ship, to take back with him to Copenhagen. To the persons that bring them for sale a written testimony of their respective qualities is given, by virtue of which they receive of the king's receiver-general fifteen rix dollars for a white falcon, ten rix dollars for one half white, and a gratuity of from two to four rix-dollars to encourage them for their pains in this business. For a grey falcon they had formerly two rix-dollars, but for several years past they have had seven rix dollars for every one of this kind." The same writer gives a detailed description of how the Icelanders contrive to take the falcons alive. "They strike two posts into the ground, a little distance from each other: to the one they tie a Ptarmigan or pigeon, (or for want of either a cock or hen) by a small line two or three yards long, that they may flatter about a little and that the falcon may the sooner observe them: to the leg of the Ptarmigan or pigeon they tie another string, one hundred yards long or more, which goes through a hole in the other post, in order to draw the bait to that post, where a net is fixed like a fishing-net, with a hoop in a semicircle of six foot diameter. This being pulled down, it goes over and covers the post, for which purpose there is another string fastened to the upper part of the hoop, which goes through the first post to which the bait is tied. These two strings the falcon-catcher has hold of, that he

may pull the bait where he pleases, as also the net over his prey. These nets they fix near a nest, or where they see a flight of Falcons approach. As soon as the Falcon sees the bait fluttering on the ground, he takes a few sweeps about in the air just over the place, and looks about to see if there be any danger; then he strikes with such violence that he takes the bait's head off as clean as if cut off with a knife. The moment he has struck the bait, he generally flies up again, unless very hungry, to look about if any danger be at hand, or any thing to interrupt him in the enjoyment of his prey. In the meantime of his flying up the Falcon-catcher pulls the string and draw bait to the other post close under the net, which the Falcon not observing presently darts to devour his prey, but the other string being pulled, he is caught in the net. . . . The Falcon-catcher is generally hid behind some stones or bushes, one hundred yards or more off, where, even if the Falcon sees him he has no mistrust, being at such a distance. . . . During the voyage the Falcons are kept between the decks, tied to poles, two rows of a side and these poles are covered with coarse cloth, and stuffed with straw, and lines are hung from one side to the other pretty close, that they may have something to catch hold of, if the ship should be tossed about" (*Natural History of Iceland*, p. 59 *et seq*). But it must not be supposed that the passion for training falcons has at any time been confined to the sportsmen of temperate climates.

The noble pastime of falconry has long claimed earnest devotees among the Arab sheikhs of Northern Africa. The Barbary Falcon (*Falco barbarus*) and the saker (*Falco saker*) are specially esteemed, being trained to fly at Eagles, Kites, Sand-grouse, and especially at the Houbara Bustard. Mr G. H. Fernan of Casablanca has kindly written to enlighten me on this subject. He reports that the Moorish Arabs capture Hawks by means of a semicircular net, which is dyed dark brown or black. The net is propped up with sticks, which are placed in the centre of the semicircle and at the entrance of the net. Wooden pegs are often used to secure the edges of the net to the ground. A tame blue pigeon is tied to a stake near the mouth of the net. The falcon strikes boldly at the lure. The tremendous impetus of the descending flight carries her onwards into the coils of the net before she has time to recover herself. The Arab is lying in hiding. When the bird is taken he dashes up and secures the prize. Von Heuglin records (*Ornithologie Nord Ost Africa*,

Vol. II, p. 300) that in his experience the Arabs capture the Saker by means of traps which he calls "Telleucism." He is not as clear as he might have been, but I understand his traps to have been flat, bow-traps, having the half-leaps bound round with strips of cloth to preclude the possibility of any injury accruing to the bird. The Arab studies the habits of the particular bird which he has determined to catch. He ascertains the exact spot in which this Hawk is usually in the habit of roosting. He sets one or more of these traps on the bird's perch, and then lies in wait for its arrival. When the balance of the trap is sprung the bird hangs helpless until released by its captor.

The falconers of India attach the highest value to the Shahun (*Falco peregrinator*)—a near ally of our European Peregrine—as a bird of splendid courage and amazing speed. It is principally employed for hawking Francolins and Plovers. Jordan states that this and the other Indian falcons are generally caught by what is known as the

Between *etc.*, a thin strip of cane, which measures the approximate alar expanse of the falcon which it is desired to capture. This piece of cane is tied securely to a dove or other quarry in such a way that the extremities of the cane project on each side of the dove. The fowler smears the ends of the cane with birdlime for several inches. He also sets up the eyelids of the dove. The blinded bird, on being released, soars upwards in the air, and thus attracts the attention of the Wild Hawk. The latter hastens to strike its victim, but its pinions come into contact with the viscous fluid, and it falls helpless to the earth. The use of birdlime for catching Hawks is not by any means confined to Asia. Thus Demetrius of Constantinople is careful to inform us that some Greek fowlers employed lined twigs for catching Hawks in his day. Their plan was to peg down a pigeon to the ground—allowing it a long tether—and to place twigs which had been smeared with birdlime all round. Markham (*Hesperus Perfection*, p. 153) furnishes elaborate instructions for "Taking with Lime diversely," as he phrases it. The capture of a Hawk, he says in substance, may be effected by employing birdlime in two ways. The first is by the manipulation of a little small lime-bush artificially made of fine twigs fast so gently into a little socket of musk made like a handle, that as soon as any thing toucheth or striketh them, they presently depart from the socket and clappe close to the thing that toucheth them, whereby they are

intangled, these little bushes are mutually placed about the stand where the hawk useth to sit, compassing it so about that the Hawk cannot come to the same, whether with wings spread or wings close; but he must of necessity touch the points of the rods, and then as soon as the points are touched they clap under the Hawkes wings and so entangle her." Markham enjoys that when lined rods are used by themselves "they must be fixed to the nearest branches to the stand, coming diagonally so near unto the stand, that the Hawke cannot come in, or settle her self upon the same, but must of force touch some one point or other of them, which no sooner shall be touched, but presently it must forsake the place where it was first, and clap unto the Hawke, which as soon as she feeleth and beginneth to be angry, and to beat or struggle with her wings, then instantly the rest clap about her, and altogether intangle her." The drawback to the use of birdlime for catching Hawks is identically the same in the experience of such widely different writers as Markham and Demetrius. They agree that the use of lime injures the flight feathers, and renders the birds so taken of less value than if they had been caught by other means. Most people would be inclined to imagine that birdlime was all adapted for the capture of large birds of prey. Nevertheless, the crôles of the island of Réunion adopt birdlime as a means of reducing the numbers of a fine species of Harrier (*Circus maclacoti*), which has a *prossant* for chickens, and often commits raids upon their poultry yards. This Harrier more nearly resembles the young of the Marsh Harrier in first plumage, than any other European Hawk, but the Réunion bird is shorter in the wing than the Marsh Harrier, and has the circular ruff around the face a little more fully developed. The crôles endeavour to capture the mammeter by pegging down a chicken in such a way that it cannot move far. They then set a number of small branches covered with birdlime around the chick. When the "Pied jaune," as they call the Harrier, passes by, its attention is attracted by the cries of the chicken, which has been taken away from its mother. As soon as the Hawk observes the chicken it darts upon the little bird, but the moment that it seizes the chicken the wings of the Hawk come into contact with the lined twigs, which prevent the Harrier from making good its retreat (*Pollen, Rêcherches sur la Faune de Madagascar*, p. 41).

Gould's Harrier (*Circus gouldi*) is captured in New Zealand in a

somewhat similar way to the species last named, that is to say, by means of a chicken or other feathered bait. The Maoris do not, however, employ birdlime for catching Hawks. They contrive to secure the Harrier by means of flax snares. These last are arranged in such a way that when the Harrier strikes at the lure its feet are held fast by a running noose. This hawk-trap is known as the "Kunapiti," and is figured among the illustrations prepared for *White's Ancient History of the Maori*. The drawing in question represents two long and pliant switches as being inserted in the earth a few feet from a small shelter, apparently intended for the use of the decoy. A number of slip-nooses are attached to the smaller ends of these rods, which are held in position by threads. The snares hang in the air immediately in front of the little shelter of the decoy. The Harrier essays to seize his quarry and is entangled in the fine but strong snares which have been prepared to effect his detention. The struggle of the bird of prey liberates the upper end of the rod bearing the nooses which have passed his ruin. The rod being released flies up into the air and the Hawk flutters in a tangle of nooses. Before discussing the various ways in which Sparrowhawks are or have been netted, attention may be drawn to the following note of the late T. C. Heysham, detailing a wrinkle for taking these birds with birdlime:—"A white cloth or napkin is spread on the ground and fastened at the corners with hooked sticks. In the centre of the napkin a live Sparrow or other small bird is fixed by means of a string three or four inches in length. Slender twigs are stuck up on both sides of the cloth, to prevent the Hawks from attacking the sparrow on either side. Two long, slender twigs of the weeping willow, well covered with birdlime, are stuck in the ground, one at each end of the napkin, the two together forming an arch over the bird, but at such a distance that the sparrow cannot touch them with its wings whilst fluttering; neither can any Hawk reach the sparrow without coming in contact with the limed twigs. The use of the limed cloth is to attract the attention of the Hawks at a greater distance to the sparrow fluttering upon it. The limed twigs are stuck so lightly in the ground, that if the Hawk, upon finding himself entangled should struggle, they would go off with him and prevent his flight."

Gervase Markham devotes the twelfth chapter of *The Art of Fowling* to the "taking of Hawkes of all kinde" and all ages. He was personally

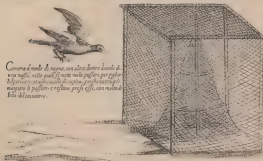
familiar with the Goshawk, Sparrowhawk, Merlin, Hobby, Kestrel, and Harriers. He distinctly affirms that all of these "have their Ayries and breed in this Kingdom." This is a very important statement, seeing the obscurity in which the former residence of the Goshawk (*Accipiter palmarum*) in Great Britain is still enveloped. I do not think that the notes which I am about to quote refer to the Goshawk, for this reason, that the size of the nets described seems to be too small for the capture of the Goshawk. Consequently it would seem wiser to conjecture that the Sparrowhawk (*Accipiter nisus*) and the Hobby (*Falco subellatus*) are the species which Muckham had specially in view. He advises the fowler to first discover the whereabouts of an "Ayrie" of Hawks, which may be ascertained by searching for the "mutings" of the old birds; "which will not only beabout the Tree and trenches under the Ayrie, but also the ground and other places." The young Hawks can either be taken by hand out of the nest before they are able to fly or caught as branchers in pocket-nets set around the nest, these nets measuring about two feet or thirty inches square, and being arranged in such a way as to intercept the young birds when accompanying the female to the nest at feeding time. The nets are to be made "of strong twisted Housewives thread, and dyed as neere as you can to the colour of the leaves, that it may give no affright or dislike to the Hawkes." Another method of taking Hawks is to take them in their "seage, which is indeede from that time they have preyed for themselves and are masters of their owne strengthes and courages, being able to make a true choise of their prey, and to conquer it, until the first whole yeare be fully expired and that they have moued and exchanged either all or at least most, part of their first fathers." The fowler is instructed to study the habits of a "Sore-hawke," and to set a pair of "these Nets which Faulconers commonly doe call Urnes or Urnes," which are to be bought "almost of any Barber, or Net-makers which dwell in the Wood Countreies," and must be "of strong twisted brown thred, and dyed either Blew or Green, as aforesaid, with a reasonable large mesh, for that sooner entangleth and holdeth the fister." The "urnes" are set round the "stand" which the Hawk uses, "so as she may come no way to the stand without danger of the Nets, into which if at any time she strike, she is presently taken." If the fowler does not find the arrangement last named succeed, he must adopt another plan. "Pitch and place your Urnes, and under the guard of them, you shall fixe

Stakes of such blades, either great or little, as you see the Hawks daily preyeth upon, and these stakes you tye at such a convenient height, that they may flutter with their wings, and flye a little up and down about the Net, yet by no means without the guard of the Nets, nor so as the Hawke may not in any wise come unto them, or offer to strike at the without the certain danger of the Nets." Yet another method of capturing the "sore Hawk" is to catch the roosting bird with the assistance of a lantern.

Demetrius of Constantinople was familiar with the device just explained; for he tells us that some fowlers set nets for the Hawks in the tops of trees, placing a pigeon or fowl in the centre (*trichodanque in medio aut gallinam ponunt, atque hunc in medio insipientes capunt*). The Sparrowhawk is the bird which I fancy that Markham had chiefly in mind in giving the elaborate instructions epitomised here. His exactness reminds me of the pains bestowed upon the capture of the Sparrowhawk in other parts of Europe. The most classical account of netting sparrowhawks is that of Belon who obtained his experience in the Levant. It was at the end of April (in what year he does not say) that this French naturalist was amazed to witness a great migration of two species of Hawks, Kites, and Sparrowhawks. A fowler was busily employed in netting the Sparrowhawks, and with such wonderful success that he caught a dozen in an hour or one every five minutes as the birds came off the Black Sea. The fowler had arranged his nets around a level fowling-floor, in the centre of which he had the "stakes," a number of little birds all tied to the end of a cord, the other end of which he held in his own hand. The nets were made of fine green thread and were suspended in pairs on each side of the floor, that is to say to the right and left of the fowler. These nets were supported by six stakes, which stood as high as a man, and the nets adhered to noles cut in the top of the stakes. When the fowler saw a Sparrowhawk coming near he pulled the cord to which the wild decoys were attached, and made them flutter (just as an Italian fowler would pull a string of Larkst, to induce the Sparrowhawk to strike at one of the little birds). The Hawk was then sure to dart right or left into one of the nets, which immediately dropped to the ground, covering the Hawk, which was thus effectually secured.

Di Valli figures, with a brief description on the block, a "Ragun" or net to be set between four stakes for the capture of the Sparrowhawk. It is arranged as a square, and Olina reproduces the same net with a

slightly altered inscription on the plate, adding in his letterpress that the nets should be made of green or azure silk or fine twine, and eight cubits square. A conical net is placed inside the sides of the "lagna," in which some young Sparrows or other small birds are placed to induce the passing Hawk to swoop into the folds of the net. Some hawkers attach the nets to growing saplings, taking care that the leaves do not obscure the Hawk's



ROBERTS (after Oltus).

view of the small birds. Oltus remarks that this method is closely related in principle to the nets which Telen saw used in the Levant. In India the Sparrowhawk is trained to kill Sandgrouse and pigeons as well as smaller birds. The most popular Hawk for training in that country is the Shikra (*Accipiter badius*). Mr Littlehale of Baroda informs me that this bird is generally taken by Mohammedans connected with the Maharajah's "kashkhan" or hawkling establishment. Mr Littlehale has procured for me the arrangement of snares by means of which the Shikra is usually captured. This consists of fifteen slender pieces of split cane, each measuring about twenty and a half inches in length. These rods are arranged across one another at equal distances, and are bent over on both sides of the common centre in such a way as to give the appearance of a conical basket, with the apex placed upwards. The several pieces

of cane are bound together firmly at the apex of the cone with cotton thread. Ten separate threads are wound in and out of the canes in such a way as to form a series of meshes of cane and thread, varying from about half an inch to an inch in size. The framework of the trap being



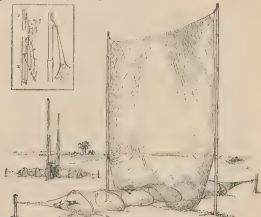
FIGURE 100

completed, the fowler takes a lump of wet clay on each side of the trap in order to steady it. He then covers the exterior of the trap with a series of nooses. These running nooses average three and a half inches in diameter, and are composed of strands of black horsehair. It only remains for the fowler to attach, from the inside of the cone, four fine horsehair snares, in order that he may be able to suspend in them a corresponding number of little birds. The fowler takes his trap to a suitable spot for catching the *Shikra*. After baiting it with a small bird or two, he places the trap in the desired position, and proceeds to hide himself. When a wild Hawk sees the little bird fluttering under the snare, it pounces at its intended victim, but is speedily entangled in one of the numerous nooses hanging from the outside of the cane framework. The *Bera* (*Accipiter nigratus*), another Indian Sparrowhawk, is highly esteemed by falconers for its speed, courage, and endurance. Jordan states (*Birds of India*, Vol. 1, p. 53) that this and other Hawks are

usually caught by what is called among falconers the "Do Gu." This is a small thin net measuring from four to five feet in length and a yard in depth. It is stained a dark colour, and is suspended between two thin pieces of bamboo by a cord on which it travels. The bamboos are fixed lightly in the ground, and a live bird is picketed about the middle of the net within a foot of it. When the *Besta* swoops at the decoy it involuntarily slats into the net, which, like those described by Belon, drops to the ground with its struggling prisoner. Somewhat similar in principle to the net just mentioned is that which Mr A. J. Sandius tells us is used on the plains of China. "A long, cylindrical cage of fine network, resembling the extreme end of a decoy, the tubular structure being kept in position with light bamboo hoops, is pegged down on the ground, usually in an orchard. In this cage are some half-dozen small birds. At right angles across the centre of this cage there is placed a fine net about four feet square, weighted at the top with small bullets, and travelling up and down two slender rods, at the top of each of which is a light chip, which just supports the weight of the net. The hawk dives at the little birds, which fly to the other end of the cage, and the hawk, following them, goes full tilt into the net, which is released by his impetus and falls, entangling him in its folds, when he is immediately seized upon by the falconer, who is close by in ambush" (*Field*, January 16, 1892).

The sport of Falconry is believed to have been introduced into Japan from Korea more than two thousand years ago. It was extensively practised in Japan as long as the feudal system flourished, and still survives as the amusement of a few wealthy men. The Japanese plan of taking Hawks is very similar if not actually identical with the system employed in China. A perpendicular net, measuring about seven feet square, is extended between two bamboo posts, which stand about seven feet from the ground. A cylindrical net, measuring about thirteen feet six inches in length, is extended beneath the upper net, as shown in the diagram. This net is kept in the required position by means of a series of bamboo hoops, which secure to the net a girth of five feet six inches. The falconer adapts his lure to the species of Hawk which he desires to take. If a Peregrine is the object of his operations, he places a live pigeon inside the lower net. Alternatively, Tree Sparrows are allowed to flutter inside the net, when catching small Hawks is the order of the day. When the Hawk swoops at the quarry, the impetus of her flight carries her into

the perpendicular net. This at once collapses and falls to the ground, bearing the bird along with it. The accompanying diagram of the Japanese Hawk-net is based upon a specimen of this engine which I procured from Tokyo through Professor Ijima.



Japanese Hawk-net.

The engine in the foreground is represented as it appears when hoisted to catch a Falcon. The net shown in the distance is depicted as having dropped, after being struck by the Hawk which is struggling in its meshes. The small diagram in the corner is intended to explain the mechanism by which the net is suspended from, or lowered from, the bamboo uprights (*c. g.*), by means of the pulleys.

[The headpiece of this chapter has been drawn to explain the principle of the system of Hawk-catching in vogue at Valenciennes. This is admirably described in the *Essays on Sport and Natural History* of Mr J. E. Harting, who kindly suggested that I should abridge his experiences.]



CHAPTER XXII.—PELICANS AND GANNETS.

THE Pelicans (*Pelecanidae*) are rarely identified with the traditions of sport, nor can it be contended that these birds are often sought after as an addition to the supply of human food. Even in this respect, an

exception must be made in the case of the American Pelicans (*Pelecanus*) since Audubon records that the negroes of the plantations on the eastern coast of the Floridas are, or were, partial to the flesh of these fishy birds. Their method was simply to shoot the birds, which were skinned "like so many raccoons," and afterwards consigned to the stew-pot. In the East the Pelican is utilized as a decoy for other birds, in consequence of its eminently cautious and wary disposition.

The Dean of Cairo has been kind enough to draw my attention to the fact that a white Pelican (presumably *Pelecanus onocrotaphus*) is killed and stuffed by some of the Egyptian fowlers, who wear the skin of the bird as a species of head-dress when they wish to catch different species of Wild Ducks. A similar device is practised on a large scale in Sindh. Mr Hume found that the fishermen who make their home on the inland waters of that part of India, spending their lives upon their houseboats, not only eat Pelicans, but employ these birds as decoys, both in life and as stuffed dumatics. When the Sindh fisherman desires to obtain a stuffed Pelican—the species which Hume found in use as a decoy was the Indian Pelican (*Pelecanus erythrorhynchos*)—the man first kills a wild bird. He proceeds to skin the specimen with considerable care, retaining the entire skin, with the exception of a portion of that of the belly, which is discarded, with the feet, because these parts cannot in any case be exhibited in the stuffed decoy. The body of the skin is placed in the desired position by the insertion of a light bamboo framework. Special pains are taken to render the head and neck as life-like as possible. The large pouch of the Pelican is coloured with turmeric, and the eyes are replaced by artificial eyes made of lac.

The stuffed decoy is used in conjunction with one or more living birds of the same species. The fowler keeps several of these tame birds upon his boat. In order to deter the captive bird from any fruitless efforts at escape, its owner is careful to blind it, not, however, by destroying the vision of the bird, but by sewing together the edges of its eyelids. Such a tame decoy is placed, with one or more companions of its own kind, in some retired spot which Wild Ducks are in the habit of visiting. The tame decoys are prevented from swimming away by being moored by strings (fastened round their legs) to the roots of some bunches of rushes, or to stakes driven into the ground under the water. When the flocks of wildfowl that pass over the spot in which the tame Pelicans are

swimming observe the presence of their larger neighbours, they gain confidence and readily join company to the Pelicans. When the fowler finds that the live decoys have gathered some Ducks about them, he enters the water, mounted in the stuffed skin. He is careful to approach the Ducks slowly and softly, making the skin, which covers his head, sail about in the most natural manner imaginable. As soon as the man reaches the spot where the Wild Ducks are swimming unsuspectingly around his blinded decoys, he adroitly pulls as many Ducks as he desires under the water. The task accomplished, he retires without having caused any alarm to the survivors. Mr Hume states that even Pelicans are pulled under water, and retained by the native as unwilling prisoners. The birds caught in the manner just described are seized by their legs, and have no opportunity for raising an outcry.

The long-winged and graceful Frigate Bird (*Fregata aquila*) does not apparently offer any inducement to the fowler to sacrifice its existence for the sake of acquiring its flesh or feathers for practical purposes. It is the more remarkable that an organised system of capturing this ocean wanderer should exist upon Pleasant Island.

The chiefs of Pleasant Island indulge in a rivalry as to the number of Frigate Birds which they can obtain during the month of July, when the Frigate Birds appear to pass the shores of this island on migration. "My attention," writes Dr Otto Finsch, "was called first to a large bower or shelter about seven or eight feet high and twenty feet long, made of sticks and some green trees, which were partially cut down, but were still growing and covered with leaves. On this bower were placed eight living *Falklandites* apparently perfectly tame; for I could not make out that they were fastened by a cord. These tame specimens serve as decoys and attract the wild individuals, who pass by the reef where the bower stands. The bower is always erected near the shore, so that it may be seen at a great distance at sea. The birdcatchers are ever on the watch to be ready, in case a straggler should make its appearance. These men are 'takees' during the time of their duties in this spot, and may do no other work. They get their food separately cooked, and may not have intercourse with women. The sole apparatus for catching the Frigate Bird is, as I said before, a sort of lasso, consisting of a fine cord of coconut-fibre seventy to eighty feet long, on which a 'Bala' of long conical form, about three inches long, made of shell (*Tridacna gigas*)

or iron, is fastened. As soon as a wild bird approaches the stand, where the decoys sit, the birdcatcher watches it with the greatest care, endeavouring to hide himself under the leaves of the trees. In wide revolving lines of flight the *Tachypeta* (the best and most elegant flyer of the Pacific) comes nearer and nearer, hovering bye and bye above and near to its tame comrades, but without resting in their company. Apparently it does not care for the dark-skinned native, although it may see him. Anyhow the birdcatcher is more careful than the bird, and taking a shot when the latter skims along just above his head like a flash of lightning throws his 'Pala' above the bird, which, entangled in the cord, falls and becomes his prey. The captured bird is fastened by a cord around the wings and placed on the platform of the lower among the other victims of this sport' (*Ibid.* 1881, p. 248).

Dr Finsch remarks that at the time of his visit one of the chiefs was bent on getting sixty Frigate Birds alive and required only one dozen to make up the number thirty having been captured for him by one birdcatcher and eighteen by another.

The Common Gannet (*Sula leucogaster*) has long been associated with daring feats of climbing, and is this to be wondered at considering the precipitous character of the stacks which afford a resting place to the nests of this gregarious bird. The number of adult birds which are to be seen sitting on their eggs at one time is immense. The cloud of Sooty Geese which floats overhead after the discharge of a gun only represents one half, or perhaps less, of the breeding colony. Many birds pass the day in fishing at long distances from their native rock. The fowlers of St Kilda are adepts at taking the Gannet by dropping the noose of the fowling reel around the neck of the bird. A stranger might do the same; indeed, my groundsheet tells me that, as a young man, he helped a crew of St Kildians to snare a quantity of Gannets in orthodox fashion. All the same, the man who is to engage in such a risky undertaking needs to have a good head and sure footing. In bygone days the inhabitants of St Kilda were accustomed to make the fullest use of the birds they caught. The breastbone of this Gannet served them as a lamp or receptacle for bird oil. The dried stomach of the same bird was found to answer the purpose of a bottle. Sir George Mackenzie informed Professor Wilson that when he visited St Kilda some of his party discovered a cask of wine which had been washed up

upon the beach. The strangers marked the position of the barrel, and returned—to find it drained of its contents. The islanders had also noticed it, and had drawn the liquor off into the stomachs of Gannets, which were found suspended from the rafters of the cottages. In old days the Gannets used to be caught at night. Martin quaintly observes, “The *Solan* Geese have always some of their number that keep Centinel in the Night-time, and if they are surprized (as it often happens) all that flock mistake one after another; but if the Centinel be awake at the approach of the creeping Fowlers and hear a Noise, it cries softly *Geeg, Geeg*, at which the Flock move not; but if this Centinel see or hear the fowler approaching, he cries quickly *Boo, Boo*, which would seem to import danger;—soon immediately after, all the Tribe take wing, leaving the Fowler empty on the Rock, to return home *as usual*, all his Labour for that Night being spent in vain.” (*A Voyage to St Kilda*, p. 53). The islanders of that day remarked that the *Solan* Geese which frequented St Kilda appeared to make long flights in search of fish, since hooks of English origin were often found adhering to the fishbones deposited in the nests of these birds. Macculay, whose history of St Kilda was written in his name by Dr Morpheyson of Sleat, furnishes a note on the growth of the young Gannet:—“The young *Solan* Geese is fit for use in the month of September, if the first egg laid by the old bird remains untouched. If otherwise the young fowl is not fit for the table till the month of October. Before the young *Solan* Geese, which they call *Geeg*, fly off they are larger than the mothers, and excessively fat. The fat on their breasts is sometimes three inches deep. The inhabitants of Hirta have a method of preserving their geese in a kind of lard, made of the stomach of the old *Solan* Geese caught in March. In their language it is called *Gilain*, and this oily kind of thick substance, manufactured in their way, they use by way of sauce or instead of butter, among their partridge and dumplings. In the adjacent isles they administer this oily substance to their cattle if seized with violent colds, or obstinate coughs; and it is the general belief that the application of the *Gilain*, in such cases, has a very good effect.”

The Bass Rock has been visited in our own day by many naturalists. Perhaps the most classical landing ever effected on the island was that carried out by Willughby and Ray, the pioneers of British ornithology. They found the young Gannets still unfledged in August:—“The manner

of getting them is by letting down a man in a basket by a rope from the top of the cliff, who gathers the young off the ledges of the Rocks, as they let him down or draw him up" (*Ornithology*, p. 19). The Warwickshire squire comments on the tameness of the nesting birds, which "never being shot at or frighten'd are so confident as to alight and feed their young close by you." Willoughby was assured by the Cornish fishermen that they were in the habit of capturing Gannets by the widely circulated recipe of a fish secured to a thin plank of wood, which drifted on the surface of the waves until a Gannet spied the glittering scales of its prey and shot headlong at the prize. Thompson has drawn attention to the fact that Gannets are often drowned in herring nets, even when these have been sunk at a depth of nine, ten, or thirty fathoms.

The Tropic Bird (*Phætos rubulus*) is an object of pursuit at the hands of the crude fowlers of Hispania. This species nests, according to Pollen, in the holes and clefts of precipitous cliffs. The chase of the "Pailles-en-queue" is therefore accompanied by some personal danger. The natives take pains to ascertain the precise spot in which the Tropic Birds are in the habit of nesting or of passing the night. When this point has been satisfactorily settled, a raid upon the birds is arranged, the operation being carried out at night while the birds are sleeping. When the fowling party has arrived at the supposed scene of operation, one of the men is lowered by his associates at the end of a rope. He makes his way to the nests, and endeavours to seize both old and young birds, his booty being consigned to the sack which he carries with him in his descent. The old birds show fight when surprised in their rocky fastnesses, but are drawn out of their holes by means of sticks, which have previously been smeared with birdlime.

The members of the Cormorant family (*Phalacrocoracidae*) are seldom held in much estimation. It must be confessed that their ungainly form and ugly splay feet are little calculated to inspire admiration: yet some of the species found at the Antipodes are remarkable for the beauty of their decoration. Perhaps the most valuable quality of the Cormorant is the extreme docility which it evinces in capturing fish for its owner, when properly trained. Fishing with tame Cormorants is a sport well known in India, China, and Japan, but the flesh of the Cormorant is used for human food. The European Shag (*Phalacrocorax græculus*) has long been held in favour as an addition to the poor fare of the people of

the Hebrides. Formerly the birds were caught in the caves which are still frequented by this maritime species. Martin thus describes the capture of this bird in the island of Skye: "On the south side Loch-Portry, there is a large Cave, in which many Sea-Cormorants do build; the Natives carry a bundle of straw to the door of the Cave in the night-time, and there setting it on fire, the Fowls fly with all speed to the Light, and so are caught in Baskets laid for that purpose" (*Description of the Western Isles*, p. 151). I have never found any trace of this habit in my various visits to Skye, and believe the custom to have become obsolete. But a simpler plan is that of rushing the nesting haunts of the Stag or of capturing the nestlings when they have left the nest only a few days, and will allow a hunt to approach them very closely. In our day, the conventional method of procuring "Scart" soup is to shoot the white-breasted or immature birds; the adults are too strong for most stomachs. I knew an old Crusian veteran who spent his later years in the congenial occupation of shooting wildfowl upon the waters of the Solway Firth. He asked his wife one day to cook a "Water Cren" or "Black Diver." The worthy woman obeyed the behest of her goodman, but she afterwards assured me that both she and her spouse entered martyrdom in consequence, and that nothing would induce her to try to eat a Cormorant again.

The Greenlanders are, or were, fond of slaying the Common Cormorant (*Phalacrocorax carbo*) for the use of their families, as Fabricius records. Their usual way of killing the Cormorant was to shoot it, especially when gorged with fish, with their bird-arrow. But they had two alternative devices. One was to snare the bird at its breeding place. This could be accomplished by approaching the bird from above with a long pole, to the end of which one or two strong nooses made of whalebone were attached. It was found by experience that the Cormorant easily became entangled in the snare. Their other device was to climb down or up the precipices, and surprise the roosting birds by seizing them alive or by catching them on a hook lowered from above.

Such expedients are not peculiar to Greenland. Pennant states that the natives of Kamtschatka capture the Red-faced Cormorant (*Phalacrocorax urile*) "in snares with a running noose hung to the end of a pole, with which the fowlers creep quietly towards the birds, and fling it round their necks, and draw them up the rock. The rest of the flock are so

stupid that notwithstanding they see the fate of their companions, they remain shaking their heads on the same spot till they are all taken. Another plan is to take the birds in nets, a device which appears to be practised in different parts of the North Pacific. Thus Turner observes that some of the Aleuts used to take the Pelagic Cormorant (*Phalacrocorax pelagicus*) with a kind of net, which was thrown over the birds when they had been driven from their usual haunts on the outlying reefs by a severe storm, and were compelled to perch upon the rocks which jut out from the sea-beach.

It was, perhaps, of this Cormorant, which Turner considers the most beautiful bird of the Bering Sea (its plumage glittering with metallic reflections of blue, purple, and bronze), that Krascheninnikoff wrote in his *Natural History of Kamtschatka* the English edition of which appeared in 1768. That writer assures us that the natives angled for Cormorants in the following way. A thick wooden or iron hook was baited with a fish and attached to a long rope, the hook being inserted into the back of the fish and thus perhaps detaining the fish without much injury. The Cormorants soon observed the bait when thrown into the sea and would quarrel for its possession among themselves. The strongest bird, having swallowed the bait, became hooked and was then drawn ashore by the waiting fowler. This plan was rendered all the more successful by the supplementary device of securing a decoy Cormorant to the same rope as the fish. The decoy was prevented from swallowing the fish by having its bill (or, perhaps, its neck) secured with a cord. The wild Cormorants were attracted to the spot by the movements of the decoy. Smyth states that the Australian blacks capture Shags and Cormorants in an ingenious fashion, i.e. they plant stakes in the water in places where there are no natural resting-places for these birds. When the Cormorants alight on the artificial resting-places thus provided, the fowlers swim quietly up to the unsuspecting birds and seize them. This piece of strategy is independently supported by the experience of Mr Tom Carter, of Point Charles, Western Australia, who writes to me:—"On Fraser Island here, we have gone off in the dingy when the young Shags? (*Phalacrocorax aeneo-helladicus*) were almost fledged, and chased them into the sea, when the blacks swam in pursuit and dived after them until they caught them." Smyth says also that the blacks knock these birds off the branches of stranded trees, and the withered stumps on which these

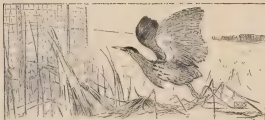
scouts like to congregate, with sticks or with the boomerang (*Aborigines of Victoria*, Vol. I. p. 194).

A curious fact in the history of the Common Cormorant is furnished by Belon, from whom we learn that the gentlemen of Venice used, in bygone days, to hunt the Cormorant on their lagoons.

The sport was carried on in a season of fine weather, when the whole company of gallants embarked in a flotilla of small boats, of the kind known locally as the "Fisoleta," each of the little crafts being manned by five or six oarsmen. The whole company rowed out to sea, and then the fun began. The sportsmen endeavoured to surround a Cormorant, and when the bird was enclosed by a circle of boats they opened fire upon the unlucky "Corvo marino" with their stone-bows. At first, of course, the bird sought to escape from its enemies by diving, but whenever the bird came up to the surface of the water to breathe, all the sportsmen shot at it, thus forcing the Cormorant to make a rapid descent. This amusement was continued until the bird was completely exhausted, and could be taken on the top of the water. "C'est un beau spectacle de voir un tel deluit," concludes the lively Frenchman. We can well believe that plenty of diversion was experienced by everyone except the Cormorant.

[The headpiece illustrates the method of snaring Gannets employed by the fowlers of St. Kilda.]





CHAPTER XXIII.—HERONS AND FLAMINGOES

THE COMMON HERON (*Ardea cinerea*) has long ceased to be esteemed as food in this country. That it was at one time pronounced to be capital eating is evidenced by the eulogium which Alexander Neckam has preserved in verse:

"Judicio procerum grati solet esse saporis,
Vix horum mensas gratior ornat avia."

It should be borne in mind that the *usings* of this species were regarded with chief favour. I find that a tenant of the Manor House of Meare, Somerset, drawn up in the year 1517, expressly mentions that the woods belonging to the abbot yielded an annual return of about one hundred young Herons. Nor did the custom of preserving the Hensaries of England as a source of property easily die out. That the usage survived into the middle of the seventeenth century is proved by the remark of Willoughby, "We have Heronries in England such as they have in France, however Belonius denies it: in which Herons are so well instructed and accustomed to breed, that the owners make yearly a good profit of the young" (*Ornithology*, p. 278). The young birds no doubt owed their good qualities to the pains bestowed upon their dietary in the "stews" in which they were fattened for the table. At Naworth Castle, for instance, the year 1620 witnessed the construction of a house intended to be the aviary of no fewer than seventeen young Herons, as

evidenced by the following "Extraordinary Payment":—"July 1. To Andrew Crooke making the roan for the herons: xiiijd."

The old birds were eaten by the common people at all seasons.

Both English and Continental fowlers used to catch Herons by means of baited hooks, as described in the *Rapport of the Art of Husbandry*: "Now the best way to take this great enemy of Fish is this: Having found his haunt, take three or four small Roaches or Doves, and having a strong Hook with a Wire to it, to draw the Wire just within the skin of the fish, beginning without side of the gills, and running it to the tail, and then the fish will live five or six days alive: For if the fish be dead, the Heron will not touch him. Let not your Hook be too rank. Then having a strong Line made of Salk and Wire, about two yards and half long, (if you twist no Wire with your Salk his sharp bill will bite it in two immediately) and tie a round stone of about a pound weight to the line, and lay three or four Hooks, and in two or three nights you shall not fail to have him if he comes to your Ponds. Lay not your Hooks in the deep water, where the Heron cannot wade to them, for if you do they may be long enough before you see any effect of your pains. Colour your Line of a dark green, for a Heron is a very subtle bird." Similar instructions are given in the *Rosa Inveniens* as likely to be of service in effecting the capture of the Heron or the Bittern (*Butorides Jibberis*). "That Solitaire Inventif" suggests the employment of a frog as a bait for either of these birds. It is probably because the Heron is such a cautious bird that Markham suggests that the fowler who desires to take large water fowl in nets should utilise a decoy Heron: "If you shall close by your Net stake down a live Heron (formerly taken) for a stake, & to entice the Fowle within your danger it will be better, making her now and then to flutter her wings."

The Japanese fowlers are accustomed to capture Herons by means of the "Musoana," which corresponds to our Chap-net. The Rev. L. R. Chalmersley has sent me a little sketch illustrating this variety of Fowling. The Japanese artist depicts two nets as laid in a tract of marshy ground enclosed by an amphitheatre of hills. Live decoys or stuffed dummies are placed beside the net to disarm the fears of the wild-fowl. The fowler remains concealed in the long grass or reeds watching for the fitful moment to arrive when he must pull his net over his quarry. Professor Ijima has sent to me a specimen of the net used for

taking Herons in Japan. This engine measures about twenty-five feet eight inches in total length, and is extended between stout bamboo staves measuring five feet ten inches in length. The net is fastened down by means of strong bamboo pegs. These pegs are about thirteen inches long, and have flat sides and sharp points, which would render it an easy matter to drive them deeply into soft, marshy ground. The net is made of strong dust-coloured thread, and has a mesh of about two and a quarter square inches.

The familiar grey Heron of our English trout streams is used as a decoy for wild-fowl in some parts of India. Mr Hume observes that hundreds of these birds can be observed about every fishing village in Sindh. These tame birds are blinded by the edges of their eyelids being sewn together. They are usually tethered, a string being attached to the shank of each bird. Even the lovely Great White Heron (*Herodias alba*) and two smaller species of Egret share the same fate. The birds are kept on the fishing boats. When required for the purposes of acting as decoys, the captives are tied to stakes of wood which float in the water, or to poles set in the shallows to serve as perches for them. It may not be out of place to remark that many examples of the Purple Heron (*Ardea purpurea*) and the Night Heron (*Nycticorax nycticorax*) are annually imported into England. The birds in question appear to be immature examples, taken before they could leave the parent nest in their native swamps. Another bird which has recently made its appearance in the British market as a pet is the Bittern (*Botaurus stellatus*). I do not know whether the few Bitterns which are brought to England are caught before they can fly, but it is highly probable. It was once the custom even in England for boys to wade out bare-headed into the reed-beds among which the "Bitter" or "Miredrum" reared its young. The urchins captured by hand the long-legged brood of the "Bitter-bump." But it should not be forgotten that, in the sixteenth century, the custom was to drive the Bittern into nets by means of an artificial stalking-horse. William Turner, to whom we are indebted for our knowledge of this fact, wrote in 1544 that the fowling just described was rendered possible by the sluggish character of the Bittern. He referred, no doubt, to its unwillingness to take wing unless closely pressed.

He describes the "butter" or "Myne drumbale" as, "avis . . . pegerima et stolidissima, ut que in retia ab equo ficticio npi potest trahere."

In the absence of a fuller explanation, we are left to conjecture that the fowlers first stretched their nets across the margins of the mud beds which were thought to shelter a baton, and then endeavoured to drive their quarry with the stalking-horse.

The White Stork (*Ciconia alba*) is nowadays an article of trade. In Holland the half-fledged young are taken from their nests to supply the markets. In Egypt the adult birds are captured by the Arabs. The Dean of Cairo writes to me that the White Storks make their appearance in Lower Egypt in the month of March. The native fowlers mark down the flocks of Storks that alight to rest upon the sandbanks of the Nile before dusk. Having surrounded the birds, the men wait until the leader of their party considers the moment for action has arrived. When the signal is given, the men dash into the middle of the flock. Every fowler generally secures one or more birds.

The Spoonbill (*Platula leucorhoa*) is generally captured before it is old enough to escape from its captors by flight. Mr Blanford tells me that the Dutch fowlers capture the Spoonbill when adult by a hand-net. "The man," writes Mr Blanford, "hides himself among the reeds between the nests during the night, and when the birds fly to and fro from the nests, sailing over the marshes, the man catches them with a huge net in the same way as butterflies are usually caught."

The Indian Shell Bird (*Alaudinus aculeatus*) is taken by means of a device apparently similar to the "Spring" for Woodcock. Mr J. Stillington informed Jordan that this species "is sometimes caught in the Panneah district by a bamboo, with a mouse attached, being bent down and fixed lightly to the ground by a small peg, to which an *Anapellus* is affixed. The Shell-bird, hunting about, finds the shell, and moving it to get at its contents, the peg is withdrawn, the bamboo flies up, and the mouse catches the bird, which remains dangling in mid-air" (*Birds of India*, Vol. II. p. 767).

The European Flamingo (*Phoenicopterus antequianus*) is too subtle a bird to be approached by any gunner upon the open expanse of the tracts of brackish estuary in which it usually finds its home. Nevertheless, even the alert Flamingo is occasionally outwitted by human ingenuity. Cetti enlarges upon the peculiarities of "Il Fenicottero." He tells us that the Sardinians substitute the leg-bones of this bird for a reed stem, when desirous of making a flute of the highest quality (*Ucelli di Sardegna*,

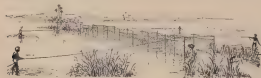
p. 297). Jaubert and Barthélemy-Lapommeraye fail to supply any information as to the actual capture of "le Flammeant" in the marshes of the Ummeigue. They remark that the zoological gardens of Europe are supplied with numerous captive Flamingoes from the lakes of Menzaleh and Matruh in Egypt. They go so far as to state that the birds are taken by the Egyptians by means of large nets, made with wide meshes, which are fixed upon the islands which these birds resort to at nightfall. It is upon dark nights that the Flamingoes are taken by surprise in these engines. 'How many of these poor birds, surprised in the nightly stillness, are borne down by the weight of the meshes or the wooden posts which bear them! By far the larger number are struggling noisily, until the moment when a quick and firm hand seizes them, dexterously cuts their joints, and crams them, as poussins, into huge cages made of palm-stems, in which they are shipped abroad' (*Richesses Ornithologiques*, p. 373).

The foregoing account of Flamingo-catching is apparently identical with the mode of taking these birds detailed by Mr J. K. Hartung, whose information was supplied by the late Lord Lalford 19 G. H. Kinsley, and Mr W. P. Bunell. 'From the letters forwarded,' says Mr Hartung, 'it appears that the capture of live Flamingoes is made chiefly at Lake Menzaleh, between November and the end of the winter. It is effected by means of two nets from 20 to 25 yards long, and from 3 to 3½ yard wide, connected at the two ends of one side by a stout cord. To these nets are attached at intervals upright poles from 3 to 3½ yards high, at the foot of which are fastened small wooden stakes, each about 18 or 20 inches in length, one-half of which is driven into the ground below the water, the other half remaining above. To the top of each pole is fixed a strong line, about 50 or 60 yards in length, to be held and pulled by a man at the proper time, the cords of the right-hand net being pulled from the left, and *vice versa*, so as to cause the two sides to fall towards the centre, and meet each other like the ordinary 'clap-net' employed by English bird-catchers. When the proper time arrives, the men employed at this work to the number of five or six in each boat, go in search of the Flamingoes at night, and as soon as they can make them out, standing where the water is from 18 inches to 3 feet deep, they stop the boat about a hundred yards off and commence to lay down their nets and apparatus under water, driving into the ground for half their

length the little stakes to which they are attached. They then stick into the ground under water a lot of slender reeds about a yard high, and at a little distance apart, so as to form a sort of line about 10 or 12 yards wide, leading up to, and passing on either side of the nets. All being in readiness, the men row round and put up the Flamingoes, driving them towards the line of reeds, where, the water being comparatively shallow, they are almost sure to alight. At a given signal the men who are holding the cords pull over the nets and a number of birds are caught, when the men hurry up to get hold of them. Crossing their wings over their backs, they put them in the boats and take them away for sale to Damietta, Matruh, and Port Said" (*Zoologist*, 1888, p. 136). It should be added that a few stuffed Flamingoes are placed as "scares" in the middle of the nets, to encourage the wild birds to alight in the centre of the toils. These dummies are mounted "with their heads under their wings," to deceive the birds that fly over into supposing that their brethren have found a safe roosting-place.

Dr Courvillou states that "The Arab who is poor, and without capital, goes at night, sinking himself in the water up to his mouth, his head covered with grass, from the lake, crawls near the sentinel [upon the vigilance of which its mates rely] which he seizes by the legs, and draws swiftly under water before it can cry out or give an alarm, and by keeping the beaks of his victims closed, he can secure a certain number before the flock has awakened and departed." Yet another ruse is for a solitary fowler to crawl near a flock of Flamingoes in silence, until he can throw a cast-net over them.

[The tailpiece of this chapter is based upon the sketch which appeared in the *Zoologist*, illustrating the article upon "Netting Flamingoes" by Mr J. E. Harting.]





CHAPTER XXIV.—WILD GEESE.

THE vast flocks of Wild Geese which annually visit the shores of Hudson's Bay have long played an important part in sustaining the scanty population of that remote region. Barnston estimated that no fewer than 57,500 examples of the Snow Goose (*Chen hyperborea*) were formerly shot in that territory every year. The commonest geese in the interior of North America is the Canada Goose (*Anas canadensis*), often called the "Grey Goose" by settlers. Barnston assures us that in former days immense numbers of this species were procured with the bow and arrow by the Indians. But even in the last century the gun was the weapon chiefly employed for killing this and other species of Geese. Pennant records that the Englishmen of Hudson's Bay used to salt off three or four thousand of these birds in a favourable season. A

series of huts, constructed of branches, were built in a line across the marshes. Each hut, or "Stand" as it was called, held a single sportsman. The latter was armed with two fowling-pieces. His success depended on his skill in imitating the cackle of the Wild Geese, for it was only by reproducing the call of the bird that he could hope to lure the game within shot. Birds must have been prodigiously numerous in that era. Pennant asserts that a single Indian had been known to shoot two hundred Geese in a single day. The natives of Alaska are reported to adopt a curious strategy in order to entice that beautiful bird the Emperor Goose (*Anser canescens*) within shot. "Should a duck not fly sufficiently near," writes Turner, "a favourite method is for the hunter to lie on his back, swing his arms and hat, kick up his legs, and imitate the call of the geese."

I am assured that the modern Indian despises the bow of his forefathers, having a more serviceable weapon in the cheap shot-gun of civilisation. He appears to have equally discarded the use of the fowling-net. But Dr Huxell is good enough to inform me that "Some thirty or forty years ago, in the early days of the Hudson Bay Co, the Indians about the mouth of the Nunavins River were in the habit of erecting nets on stout poles to intercept the flight of Geese and Ducks. Some of the poles are, I am told, still standing or were, a few years ago; but the practice has entirely died out." We are left to conjecture for ourselves the precise nature of the flight-nets just referred to. More exact information is happily forthcoming as to the form of net employed for capturing Wild Geese on the shores of Alaska. Turner speaks of the older men still adopting this engine when he wrote ten years ago. He gives the following explanation of how this net is prepared: "Strips of whalebone about three feet in length are tied by cords at intervals of two inches apart, so that the length of the net may be thirty feet and three feet high. The net is placed edgewise on the margin of a pond frequented by Geese in October. A stout cord is secured to the end of the net, and firmly fastened to a peg in the ground. The other end is secured in a like manner. A long cord reaches from the middle and top of the net to the owner, who sits a convenient distance off to be out of sight of the Geese. On the approach of a flock of Geese to the pond they are not alarmed at the net, as the strips of whalebone stand on end and resemble grass stalks. They swim near the net, and, when sufficiently

near, the cord held by the man is jerked by him, and causes the net to be thrown on the Geese. The interstices of the net entangles their heads, necks, and wings, so they cannot fly. The hunter runs out to twist their necks, and again sets his net for another flock."

The species of Goose to which the net just described proved specially fatal is that small western form of the Canada Goose which American naturalists distinguish as the White-checked Goose (*Branta leucoparva*). Turner mentions another plan by which these Geese, and likewise Ducks, were killed in former days. First of all, the beach was searched for three rounded stones of nearly equal weight and size. These generally measured about one and a half inches in diameter, though this varied with each individual's strength. The women chose lighter stones than those used by the men. After the stones had been selected, a groove was cut round each stone, deepened sufficiently to hold a strong thong of seal-skin about twelve inches long. Each stone was thus prepared, with the thong securely tied to it. The three loose ends of the stones were then tied together, so that the distance between the two out-stretched stones was about twenty inches. The strings were then taken by the knotted ends and laid carefully in the palm of the hand. The stones attached to the other ends of the strings were carefully disposed on the coiled thongs in the hand. This bolas was thrown at any flock of Goose that came within reach. It was certain to become entangled on the neck or wings of some Goose, which fell to the earth and was immediately secured. The women were adepts at throwing these stones. An old woman told Turner that she had often secured two and occasionally three Geese at a single throw. Another member of the genus *Branta* that affords good sport to fowlers is the familiar Brent Goose, three forms of which are usually recognised by ornithologists as distinct species. The form of Brent Goose which occurs upon the Pacific coast-line is the Black-breasted Brent (*Branta nigripennis*). Dr Hasell has ascertained that the Indians of Fort Rupert, which is situated at the extreme north end of Vancouver Island, have a peculiar method of catching these Black-breasted Brent Geese.

"A dark, wet, still night," writes Dr Hasell, "is chosen in the winter when the Geese are feeding on the beds of *Zostera* in shallow water. Two Indians go out in a canoe, one in the bow armed with a bunch of resinous pine-splinters known as "Gun-stick," and a large net like a landing-net

on a pole; the other sits in the stern and paddles the canoe in the direction of a flock of Brent. As soon as the canoe has got in amongst a flock, the torch is suddenly lighted and as suddenly extinguished. The birds at once get up and fly about a short distance, but settle again as soon as the light disappears. The Indians mark the direction taken by the birds and follow them, again paddling noiselessly into the flock. The torch is again lighted and extinguished with the same result. After this manoeuvre has been repeated some three times, the Geese become quite bewildered. When the torch is lighted, they do not attempt to fly, but stay and gaze at it. They are then quickly scooped out of the water by the Indian with the net." I imagine that the European Brent Geese (*Branta branta*) is too sophisticated to be netted by torch-light. Thompson vouches for this species being netted at night-time "in nets placed across the rivers" near Londonderry.

Sir Ralph Payne-Gallwey informs me that the white-breasted form of the Brent Geese is that most frequently met with on the Irish coasts.

Brent and Barnacle Geese (*Branta leucopsis*) are netted on dark nights on the Dutch coast in the Night-nets which are set for a great variety of birds. Irving Murray, an aged wildfowler, assured me that Barnacle Geese are occasionally entangled in the night-nets which are fixed at the mouth of the Neth in Dumfriesshire to catch fowl of every kind. Perhaps the most spirited narrative of a hunt after Brent Geese is that furnished by Mr Trevor Rattye, whose adventurous researches into the zoology of the island of Kolguev are still fresh in the recollection of the public.

It has long been known that the natives of Siberia take advantage of that helpless condition of Geese which results from the birds being forced to perform the renewal of their wing quills. The interest of the plan of operation adopted upon Kolguev lies in the employment of nets to check the advance of the birds after they have been driven from their favourite quarters upon the open part of the coast. The trap employed on Kolguev consisted of three-inch netting, four feet in depth, attached at the outside to a couple of poles, which were driven into the ground at a distance of thirty yards apart. "The net was then carried inland, the two walls converging, until at a point some forty yards from the entrance, they were not more than five yards apart. From this point they bellied out, and formed a circular *cul de sac*." The Samoyedes spent five hours

in driving the Brent Geese, the party being carried in seven boats, which were flanked by teams of Reindeer, to anticipate any attempt of the Geese to execute a diversion. The drive commenced at 4 A.M. and lasted until 9 A.M., when the army of Brents, with a smaller number of Grey Geese, tried to escape shoreward, and ran into the fatal enclosure.

Another primitive method of driving Wild Geese into shore nets was that formerly practised on the Pomeranian coast. The island of Rügen was famous for the number of Wild Geese which resorted to its shores when moulting, just as the Grey Lag Goose (*Anser ferus*) of the Hebrides nowadays retires to the Sound of Harris when about to shed its quill feathers. The Geese which frequented Rügen were in the habit of feeding ashore under cover of night. The German fowlers were not content to chance the success of their operation. They secured the result by laying nets all along the shore over which the birds passed when going to their feeding grounds. The nets were at first carefully covered over with sand. When a flock of Geese had marched to their usual grazing ground, the fowlers raised the concealed nets, and stretched them in an upright position. The men then drove the flightless birds towards the sea by the route which they had previously followed. When the terrified birds reached the unexpected barrier they became entangled in the meshes of the net, or were felled by the sticks carried by the fowlers. It sometimes happened that as many as forty, or even fifty, birds were obtained in this fashion in a single night. Professor Collett writes to me that the Lesser White-fronted Goose (*Anser erythrogus*) is hunted by the Lapps on the Fells of Finmark when the old birds are flightless and their progeny are also unfit to fly. The capture of these birds is effected with the assistance of the dogs which one is accustomed to see hanging about a Lapp encampment. The goslings are taken home and domesticated, but are killed for food before the arrival of winter.

The Tunguses of the Lena Delta diet themselves largely upon Wild Geese, which they sometimes shoot, like the Red Indian, with bow and arrow. They kill the birds likewise when they are in the mouth. Melville explains that a favourite method of capturing Geese upon the Lena is to run a line of horsehair nooses across a point of land or convenient place frequented by the birds. These nooses are fastened to short flexible rods, after the manner of fishing-poles, which are then thrust into the ground, and the snares are arranged so close together that

it is impossible for the game to thread its way through the line uncaught. The Geese settle on the point of land to feed, whereupon the native boy or woman approaches them, and they gradually retreat into the real danger, and the nooses tighten around their necks until the whole flock has been driven through the line of poles, or frightened away by the fluttering wings of the captives, which the natives soon despatch with heavy sticks (*The Lena Delta*, p. 132). Pallas devotes some space to describing how the natives of Siberia contrive to capture large numbers of Geese by means of the flight-nets called "Peroves." These I shall have occasion to describe from more recent information when treating of the sport of netting Wild Ducks. It will suffice to say here that Pallas describes the process in very similar terms to Mr. Jules Hensiekierski, from whom he differs chiefly in saying that these nets are, or were, set to take Geese instead of Ducks. No doubt the natives use them for both Geese and Ducks. The goose-net is set in a passage cut in a wood between a lake and the fields in which the geese feed during the night. The net hangs on lines stretched between two convenient trees. It is worked by means of pulleys, which enable the fowler to lower the net at pleasure.

The peasant who engages in this method of fowling lies out in the gates, and awaits the arrival of day. The Geese commonly flight an hour before daylight. As it is still dusk, they do not perceive the net which is stretched across their usual passage. The fowler seizes this critical moment to release the cords of the net. The net drops, borne down by the weight of the Geese, and envelops the birds so completely that they have no chance of making their escape. As many as thirty Geese are sometimes taken in a night by this device (*Voyage de M.P.S. Pallas en diplomate de l'empire de l'Empire de Russie*, Vol. II. p. 463).

We learn, too, from Pallas that the natives of the Old River region catch great quantities of Wild Swans, Geese, and Ducks when the snow and ice begin to thaw and break up at the termination of the long, dreary arctic winter. The sportsmen build little huts at the edge of the water, and employ stuffed Geese or Ducks to lure the living birds within shot. The Ostiaks make use of the flight-net, already described, by making lines through their native forests between the different sheets of water, and hanging glide-nets across the expected route of the waterfowl. Another plan is for the fowler to stretch a net called "Kistan" upon the earth in

the direction of the birds' probable passage. The two extremities of the net are secured to the tops of two trees in such a way that the fowler can hoist up the net to the tree-tops when he desires. The birds drop instinctively to pass under the net, but the fowler simultaneously releases the net, which drops down on the Geese, generally securing every bird.

Perhaps it may be as well to add the exact words of Pallas himself: "L'oiseleur construit à cet effet une cabane de branchages à une des extrémités de ses petites routes, afin de s'y cacher, et d'y observer les oiseaux qui passent. Il a un filet étendu par terre, comme 'Kistan,' deux des extrémités de ces filts tiennent à des cordes qui sont attachées aux cimes de deux arbres. Dès que l'oiseleur voit les oiseaux s'écarter, il tend aussi tôt son filet au moyen des deux cordes aux quelles il donne beaucoup de jeu. Les oiseaux qui leur pesanteur empêche de s'élever promptement assez haut pour éviter le filet, donne dedans. L'oiseleur laisse retomber le filet, qui enveloppe le gibier." (*Reise*, Vol. IV. p. 124).

The Chukchs employ living drongos to attract the attention of the fowl, but they are themselves adepts at reproducing the call-note of Wild Geese with a call made from a piece of birch bark.

Pallas notices that the peasants in the neighbourhood of Samard employ a large ground-net for Geesecatching, which they entitle "Pouch." This appears to be identical with the Chap-net which we know from other sources to be commonly employed in some parts of Russia for catching Wild Geese. The dimensions of the net described by Pallas are very much in excess of any net of the kind now used in England. He estimates the length at forty yards and the breadth at two yards. This long, narrow net is set on the banks of rivers, care being taken that the two halves of the net are parallel. The Wild Geese frequent the banks of sandy rivers in springtime, in order to feed on the shoots of *Hieracium* (*Equisetum*). The fowler waits for a party of Geese to alight in the middle of his toils, when he pulls the cord and the birds are taken.

But the use of Chap-nets for taking Wild Geese in Siberia was witnessed by a countryman of our own before the time of Pallas. A traveller named Bell was sailing along the waters of the Ob, near Singuta, on the 14th of October 1791, when he and his party landed at a small settlement upon a flat, low shore. At this village," he writes, "we saw great quantities of wild Geese, picked and smoked and hung in shades for winter provisions. We had some of them dressed, but I can-

not much praise them for agreeable food. This people of this place catch vast numbers of them in day nets, more on account of the down and feathers than of their flesh, which is but of small value. We let our barques proceed, and detained a boat to follow them as soon as we had seen the method of catching the Wild Geese. The sportsman conducted us into a spacious open plain, encompassed with woods and water. Here he had his large nets with wide meshes, spread; and a small hut, made of green branches, to conceal himself. Upon the geese were scattered about a score of geese skins stuffed, some of them standing, others sitting in natural positions. As soon as he sees a flock flying over his head, he calls, with a lot of harshen bark in his mouth, exactly like the wild geese. On hearing the call, they take a turn round, and then alight among the stuffed skins, which being perceived by the sportsman, he immediately draws a string and elaps the nets over the whole flock, or as many of them as are within their reach. The geese always alight and rise with their heads to windward, to prevent, therefore, such as escape the day-net from flying off, he has a deep, long net placed on tall slender poles, to windward, which entangles great numbers in their rising." (*Travels from St Petersburg*, Vol. II. p. 150).

Mr Blauwe assures me that the modern Dutch fowler catches Geese with Clap-nets. "A large net," he writes, "is worked by a man in a hut made of turf. The whole contrivance is usually placed on low or even on flooded land, in which case the water is of use for concealing the net. Tame decoy geese are used of the same species of which specimens are to be caught. When geese are in sight, a tame male bird is let loose. This bird flies to the place where it knows food is to be found, and calling loudly attracts the wild birds to the same place, which can be covered by the net at will. Geese are also caught in snares made of horsehair or brass wire, which are placed on the ground, and fastened by one end to a piece of wood fixed in the ground. As the geese walk over the ground in search of food, their feet are caught in the snares and the birds are made prisoners."

Sir R. Payne Gallwey states that the Bean Goose (*Anser syston*) is sometimes taken in Ireland by means of pitfalls. The trap is dug in an open meadow frequented by grey Geese. It is cut out to such a depth that a Goose can just touch the bait which is scattered at the bottom. The shape of the pit resembles a flower-pot, narrowing to the bottom.

The sides are smoothed off. "A man in Co. Monaghan has been known to capture a dozen in a day" (*The Fowls of Ireland*, p. 150). Curiously enough, the Saxonian hunters adopt the identical strategy employed by the Irishman for trapping Geese.

The Swan-Goose (*Anser cygnoides*) so well known in England as a domesticated bird, visits certain parts of Eastern Asia in great numbers upon migration. Gollwesi affirms that these birds rest at the time of their annual passage upon vast and bare extents of sandy plain. The natives dig pitfalls for the birds just large enough to admit of the entrance of a Goose, and of adequate depth. These holes are covered over with straw, which sinks under the weight of any bird that happens to tread upon it.

The Japanese are proficient also in the art of capturing Geese in pitfalls. These birds usually feed on open ground. The fowlers ascertain the customary feeding grounds of the birds, which is easily learnt by searching for their droppings and bare feathers. The fowlers then dig a few pitfalls in the earth. These holes are excavated at a distance apart of from seven to ten feet. Each pitfall measures from two to three feet in depth and breadth. When all the traps are completed, the natives cover them over with a layer of grass or a few twigs so that they are completely hidden from view. Towards evening when the Geese begin to arrive upon their feeding-ground the fowlers light their torches at some distance, and proceed in the direction of the gaggle of Geese carrying their blazing lights before them. The Geese, seeing the strange light, begin to retreat, and suspecting no danger from the direction in which they proceed, they sooner or later fall into some of the pitfalls prepared for their destruction. Messrs Hironaka Oka and Denzo Myazoguchi, to whom I am indebted for this information, state that sometimes three or four Geese are taken in a single pitfall; in this case the traps must be of larger dimensions than those which they describe. But the Japanese fowlers usually capture Wild Geese by means of Flight-nets extended between bamboo poles. They also take them in the large "Muso-sami" or Clap-net with the assistance of tame decoy-birds tethered near the net.

The Swan-Goose is supplied in large numbers to the markets of North China. Mr R. A. Carrie writes to me that "Near Tientsin in the province of Chih li there are many villages, the inhabitants of which are dependent for a living on the duck and goose harvest. Every man owns a punt

with one or more guns. If one gun only is used, it is laid horizontally; with two or more guns, one is laid horizontally and the others cocked up a little, so as to take the birds when they rise. The guns are



HITCHCOCK.

from seven to nine feet long, the bore one and one-eighth to one and a quarter inches, very roughly made and very heavy. The metal is from a quarter to three-eighths of an inch thick at the muzzle, and over an inch at the breech. They are of course muzzle-loaders fired by a touch-hole, no sort of lock being used. The punts are flat-bottomed, about nine or ten feet long and about three feet wide, drawing about three inches or so of water with the gun aboard,

with very little freeboard. As the gun-muzzle only clears the water by a few inches, the least dip makes it dip under water, and in order to prevent the water from entering, one or two feathers from the breast of a duck or goose's breast are tied underneath the muzzle, curling up in front. When the muzzle dips under, the feathers press up tightly against it and prevent water from entering, like a sort of automatic valve, while there is no obstruction at the muzzle to burst the gun when it is fired. The Chinese assured me that it never failed to prevent water from entering, and on the one or two occasions that I tipped up a gun to see,

It certainly worked. Some Chinese fill up the whole gun, from the top of the charge to the muzzle, with feathers and down. The villagers always beg one not to shoot in the vicinity, and offer to give you two or three geese if you want them, rather than have a place disturbed. The geese usually roost in the marsh, and a goodly number having been marked down at sundown in a favourable spot, the boatmen go out about nine o'clock, the punts are got out, the guns loaded, and a lighted slow-match placed in a tin box or can beside the gun. The line, or rather crescent of punts is formed and the men walk along in the water about thigh-deep, crouching down and shoving the punts ahead of them. On the occasion I went out, we found an immense mass of ducks and geese, partly on the water and partly on the bank, dimly visible in the gloom, and got to within about fifty yards of them when the signal to fire was given by a slow-match held up in the air by the head-man. The level guns went off almost simultaneously followed in about a second by the elevated ones. All the dead birds were gathered at once, while the cripples were left till daybreak, and we waded home with the punts full of dead birds. Most of the men were out by daybreak, couple-catching with bamboo, and the total bag was piled up in an irregular heap, nearly seven feet high, in the morning. There were thirty-four guns in all. The number of geese, ducks, and teal bagged I could not say, but it was huge. It is cold, wretched work. The men never get into the punts, but use them simply as gun-carriages and gun-carriers. The gun being rigidly fixed to the punt can be more easily directed by a man in the water astern, and the gun and boat recoil together. The powder used is very inferior, dusty stuff, in small, irregular lumps varying in size from fine dust to a small pea without any attempt at grain. The shot is of iron, rusty, irregular and any shape except spherical, not sized, a charge containing pellets from No. 10 to 8 & 6." In answer to my inquiries, Mr Currie informs me that the Geese which he saw shot belonged to three species of Grey Goose, which he believes to have represented the Grey Lag Goose (*Anser ferox*), the eastern form of the Bean Goose (*Anser syntus*, var. *orientalis*), and the Lesser White-fronted Goose (*Anser erythropus*). The last-named was the most numerous. Mr Syon sends me an account of how this small Goose (which by the way is a rare visitor to the British Isles) is captured by the crafty and penurious Celestial birdcatchers.

"On a vast swamp," writes Mr. Styon, "of many miles in extent, in the neighbourhood of Wuhu on the Yangtze, the natives employ a method of snaring geese which is rather strange, and which I have never seen practised elsewhere. Long rows of slender bamboos are planted in the ground about thirty yards apart, and between them are stretched thin lines seven feet above the ground, which is swampy and sometimes covered with a foot of water and floating weeds. On the lines are suspended at short intervals common iron hooks, sharp but barbed, which hang about a foot below the line. These lines cross each other, making, as it were, a huge network with meshes thirty yards square. The plan of operation is to allow the geese, which are here in countless numbers, to settle on the swamps, and then suddenly startle them. The birds rising in alarm ignore the hooked lines and occasionally get hooked, probably by the shoulder. It seems rather an odd chance, and I have never myself seen a bird caught, but it must obviously come off sufficiently often to make it worth the fowlers' time and trouble in laying out the lines, which sometimes extend a mile or more in one direction."

Kum Ayen declares that a common Chinese method of catching Geese "is to lay down a long line to which are attached a number of thin bamboo slips, bent double, and the two ends of the bamboo inserted in a beam. This beam is laid on a regular feeding-ground, and the hungry geese swallow it greedily, with the result that the act of swallowing liberates the bent bamboo, which, resuming its original shape, chokes the bird" (*With Gun and Boat in the Yangtze Valley*, p. 182).

[The landscape is reproduced from the woodcut drawn by a Chinese artist for Mr. H. T. Wade's recent work, *With Gun and Boat in the Yangtze Valley*. It represents a Chinese punt-gunner pushing his gun through the water, as described at page 227. The landscape is after Gervase Markham.]





CHAPTER XXV.—WILD SWANS.

THE WHOOPER SWAN or ELK, as our forefathers preferred to call it (*Cygnus fezzii*), is too rare a visitor to the marshes and rivers of the south of Europe to be a frequent object of pursuit to Spanish or Italian fowlers. The peasants of Western Ireland have a prejudice against destroying Wild Swans, but elsewhere in temperate and Northern Europe these birds are keenly sought after by gunners of various nationalities. Almost the only time at which the Whooper Swan cannot take good care of its safety is the close of the breeding season, when it has lost its flight feathers. In former days it was customary for the natives of Iceland to hunt the birds at this season. The same treatment was meted out to the wild Mute Swans (*Cygnus olor*), which breed in Sweden. Mr Jon Stefansson, Ph.D., communicated to the *Field* newspaper of November 2, 1895, a picturesque narrative—perhaps we should call it a “Saga”—of how the unsophisticated Swans of the north-east of Iceland are captivated by the strange music of the country folk. “In autumn,” says this gentleman, “the Icelandic Swans moult, and their beautiful long white feathers drop off and lie about the upland moors. Then they patiently wait in their inland recesses and nests near mountain lakes until their feathers grow again. This weary time of moulting the

Icelanders call 'lying in wait' because mauling is pointed to them. As autumn days shorten the new feathers grow apace and one fine day the farmers, busy in their hayfields, may see a flock of from fifteen to twenty swans slowly and gracefully winging their way to the coast, uttering their long-drawn musical notes, sounds which the poets of Iceland never tire of praising, and which at a distance are of great sweetness. Now the wily farmers have carefully prepared for their exodus. They have assembled with their dogs, rattles, and various instruments of noise, on the route the Swans are likely to take, and are lying in ambush for them. As the white-plumed flock approaches, they begin to make the most unceasing noises, shouting at the top of their voices, turning round their rattles, knocking stones against stones, inciting their dogs to bark themselves hoarse, in short behaving like madmen in the eyes of those who do not know their object. The old Swans, some of which have heard this before, are not affected by it, while the young Swans, resting on their wings, listen with eager curiosity to the deafening, unusual noise that rises up to them. When, what with fright, what with being weak and inexperienced in the art of flying they become so startled and dazed at this infernal noise, following as it does close upon the deep, unbroken silence of their inland lakes, that losing control of their wings, they descend helpless like falling stones, through the air to the ground, where they are ruthlessly seized and killed. The rest of the flock continues its way, leaving them to their fate. These young Swans are fine big birds, and their flesh is tender and luscious." This story may or may not be apocryphal. The most obvious way in which it is possible to capture Wild Swans is by setting snares in the tracks which the birds make through the banks of sedge, around which they delight to puddle, browsing from time to time upon the submerged vegetation. In Siberia the fowler fast weights his snares with a heavy stone and then sinks them in the waters of some lonely tarn. The birds crane their long and supple necks beneath the surface in order to grub up the roots of water grasses, which form their chief diet. They thus unwittingly insert their heads into the strong running nooses devised for their destruction.

A variation of the same idea is to construct a square frame of willows, in basket form, and attach running nooses all round the trap, which is then weighted and sunk in the lake which the Swans frequent. Occasionally

the sitting female is snared upon her nest by the wily Samoyede. The natives of Eastern Greenland make a curious use of oil in hunting Wild Swans. Dr O. Hudson writes to me that if the Greenlanders see a flock of Swans lying in the open sea near the shore they pour out some oil on the surface of the water. When the oil reaches the Swans the birds are unable to rise from the water, and are killed by the barbed arrows of the Greenlanders. I confess that I was always under the impression that Swans found it difficult to rise suddenly from a plane surface. The birds that I have induced to rise off the water invariably flapped at first heavily as if they found some difficulty in getting under weigh. This remark applies to Benck's Swan (*Cygnus benckii*) as well as to the Whooper. But Mr W. Nisid assures me that on a recent occasion he fired his punt-gun at a herd of Benck's Swan, which was resting, high and dry, on one of the many sandbanks of the Salway Firth. He was obliged to risk a long shot because his punt had grounded, and he could not get nearer to the birds. Happily, he missed them. To his surprise, the birds instantly rose buoyantly into the air, without the least apparent effort. The day happened to be exceptionally calm and yet the birds had not the faintest difficulty in raising themselves into the air when startled by the discharge of the gun. Yet Mr W. H. Hudson states that the Black-necked Swan (*Cygnus nigricollis*) is sometimes captured on the pampas near Buenos Ayres by Gauchos, who charge down wind upon the birds, uttering terrifying shouts.

"When these Swans attempt to rise with the wind, they only flap along the ground and are easily knocked over. A Gaucho of my acquaintance one day caught three out of a flock of six in this way, but a very strong wind favoured him, and the birds were at some distance from the water, and allowed him to come near before making the sudden change" (*Magazine Ornithology*, Vol. II. p. 125). Large numbers of Wild Swans were formerly killed in Alaska for the sake of their skins, but so far as I can gather, the gun was the instrument used in compassing their destruction. The Black Swan of Australia (*Cygnus alaudus*) has long been persecuted by the blacks, but its extermination has been brought about in many districts by the agency of the white man. Smyth writes that "In Gippsland the natives caught the wildfowl also when moulting and when sitting on their eggs or when just fledged. It does not appear that they used either the net

or the neck. The Swan was usually taken by stratagem. He was driven into reeds, and then speared or knocked on the head with a waddy." Mr Tom Carter assures me that in Western Australia the Black Swan is often captured, when in moult, by men who row it down in a boat. Gould mentions that this form of catching these splendid birds was commonly practised for the sake of obtaining the down of the bird. "I have heard," he writes, "of the boats of a whaler entering an estuary and returning to the ship nearly filled with Black Swans destroyed in this manner." Nowadays the birds so captured are forwarded to Europe to grace the ornamental waters of our home and Continental cities.

[The headpiece was drawn by Miss M. I. Macpherson from photographs of a tame Whooper, also utilized for the tailpiece.]





CHAPTER XXVI.—DRIVING AND SPEARING WILDFOWL.

IT would not be easy to exaggerate the importance of the Duck family (*Anatidae*) as a means of human subsistence. Whether we turn our thoughts to the swamps of Australia and New Zealand, or enquire the diet of the remote tribes that pass a lonely existence on the shores of the arctic seas, or whether we consider only the food-markets of Europe, we are equally astounded at the immense quantity of Ducks of all kinds which annually yield up their lives to feed the human race. An interesting statement on this topic was made by the late General Prejevalsky. That distinguished traveller found that the degraded inhabitants of Lob-Nor in Central Asia depend largely on Ducks for their food supply. "Boats, nets, fish, ducks, and reeds, these are the only things step-mother nature has endowed him with. He thinks of nothing, hopes for nothing beyond his native lake, the rest of the world does not exist for him. . . . Girls marry at the age of fourteen or fifteen. . . . The 'Kalyu'as purchase money paid to the bride's parents is considerable, ten bundles of asclepias fibre, ten strings of dried fish, and a hundred or two of ducks. . . . Ducks trapped in nets form a variety to the fish diet. . . . The

inhabitants of Loh-Nor never shoot ducks, but set traps wherever they are in the habit of resorting. In this way every trapper secures his two hundred birds in the course of the spring" (*From Kalgia to Loh-Nor*, p. 121).

It is a pity that the precise character of the Duck-nets used at Loh-Nor is not stated. We are left to conjecture that the nets were possibly stretched across the openings in the reed-beds frequented by these birds. The art of making such nets to arrest birds in flight is not characteristic of a high state of development. The ancient Lake-dwellers of Switzerland were expert at weaving serviceable nets, intended for catching fishes and probably birds as well. When I examined the nets in the Archaeological Museum at Zurich, I found portions of several nets which had been discovered in the excavations carried on at the Pfäfers Lake in the canton of Zurich. The curator expressed his firm belief that a piece of netting which he showed me had belonged to one of the huts of a pile-dwelling village. He based his opinion on the character of the netting, which measured about two inches square, and was tied with a single knot so that it might slip if necessary. It is quite conceivable that this net may have been used to catch Teal (*Querquedula crassa*), and such other aquatic birds as then frequented the waters of the Pfäfers Lake. Certainly the Australian blacks not only possess a ready facility for manufacturing nets, but they also understand how to net Ducks successfully. Mr. Tom Carter writes to me that the natives of Western Australia make their shot mainly on fish and turtle, and dugging when they can get it. "They make gosh nets out of bark, grass, &c., but I have never seen natives attempt to snare any birds or net them, or use birdlime."

In Eastern Australia, on the other hand, Mitchell found that the "Natives had left in one place a net overhanging the river, being suspended between two lofty trees, evidently for the purpose of catching ducks and other water fowl. The meshes were about two inches wide and the net hung down to within about five feet of the water. In order to procure up and others down the river, in order to scare the birds from other places, and when any flight of them comes into the net, it is suddenly lowered into the water, thus entangling the birds beneath, until the natives go into the water and secure them. Among the few specimens of art to be found in use with the primitive inhabitants of those wilds, none came so near our own manufacture as the net, which even in quality

as well as in the mode of knotting could hardly be distinguished from our own" (*Interior of Eastern Australia*, p. 152).

Smyth states that the Duck-net generally used by Australian blacks measures about sixty yards in length, and is set across a water-course, swamp, or lagoon, the lower part being three or four feet above the water. "The ends of the net are either fixed to trees, or held by natives stationed in trees. One man proceeds up the river or lagoon, and cautiously moves so as to cause the ducks to swim towards the net. When they are near enough, he frightens them and they rise on the wing, and at the same time another native near the net throws up a piece of bark, shaped like a hawk, and utters the cry of that bird. The flocks of ducks at that moment dip, and many are caught in the net. Four men are usually employed when this sport is pursued." Smyth derived the foregoing information from a black named "Wye-wye-amine," a native of the Lower Murray. Mr. Beveridge independently informed him that as many as three dozen Ducks are sometimes taken at one time in this manner, without a single mesh of the net being broken.

The Indians of Washington Territory depend largely upon Wild Ducks for their subsistence. They formerly used to kill Ducks by means of stones thrown from a sling. This plan seems to have fallen into desuetude. But they continue to hunt Wild Ducks with hunting spears. These weapons are furnished with handles which measure from fifteen to twenty feet. The prongs of the spear are placed so as to back, as not to injure the body of the bird when caught. The teeth of the prongs are on the outside, so as simply to catch in the feathers. These were formerly made both of bone and hard wood, but iron has been substituted for wood. These spears are used by night, by the light of a fire kindled in the back of the boat, which is generally occupied by two men, one to use the spear and the other to paddle. The birds which these Indians kill are the Pintail (*Refula americana*), the Canvas-back (*Pelecanus erythrorhynchos*), and other species of wildfowl. Sometimes, in foggy weather, these Indians cover their canoes over with green boughs, and then paddle quietly into the centre of the Ducks which they wish to surprise (*Smithsonian Report*, 1887, p. 632).

Audubon tells a dreadful story of how the wildfowl that frequented the Bay of Fundy were slaughtered some sixty years ago by the Indians of that region. "When July has come, all the water-birds that are no

longer capable of reproducing, remain like so many forlorn bachelors and old maids to renew their plumage along the shores. At the period when these poor birds are unfit for flight, troops of Indians make their appearance in light bark canoes, paddled by their squaws and papooses. They form their flotilla into an extended curve, and drive before them the birds, not in silence but with simultaneous horrid yells, at the same time beating the surface of the water with long poles and paddles. Terrified by the noise, the birds swim a long way before them, endeavouring to escape with all their might. The tide is high, every cove is filled, and into the one where we are now, thousands of Ducks are seen entering. The Indians have ceased to shout, and the canoes advance side by side. Time passes on, the tide swiftly recedes, as it rose, and there are the birds left on the beach. See with what pleasure each wild inhabitant of the forest seizes his stick, the squaws and younglings following with similar weapons. Look at them rushing on their prey, falling on the disabled birds, and smashing them with their cudgels until all are destroyed. In this manner upwards of five hundred wild birds have been procured in a few hours' (*Orn. Beger*, Vol. II. p. 488). The natives of Greenland pursue the Eider (*Scautera vellascens*) in somewhat similar fashion to that just described, but the Greenlanders kill their birds upon the open water. Their plan is to mark down a flock of Eiders while the birds are engaged in feeding and to row their canoes in a long line, keeping as close to the bird as possible, to diminish the risk of their movements attracting the attention of the Eiders. The birds, all unconscious of danger, continue to feed, thus increasing their weight and unfitting themselves for flight. As soon as the fowlers have reached the vicinity of the diving birds they all advance with as much noise as possible, endeavouring to surround the birds. The fowlers then discharge their arrows into the midst of the ducks, which induces many of them to dive under water. Each party of fowlers follows the bird which they have selected out of those which (being heavily gorged with shellfish) seek safety below, watching the air bubbles, in order to be able to press closely on the fugitive. The Eider, under these circumstances, tries to reach the beach and there obtain shelter, skulking among the rocks and seaweed; but the fowlers make it their business to guard against such a contingency. At last the poor bird, worn out by its fruitless endeavours to escape from its implacable foe, succumbs to the blow of a well-aimed arrow, or is taken

by hand. The moulting season is the time when the Eider suffers most at the hand of the Greenlanders, but birds that are heavily gorged with undigested shellfish often pay the penalty of hunger with their lives. The use of the spear for killing Ducks in North America and the bird-arrow of Greenland remind us of the skill displayed by the Australian blacks in spearing wildfowl. Smyth says that the natives send their spears into dense flocks of "Widgeon," and transfix the birds as they fly. They likewise drive the moulting birds into nets specially set for their reception. "Most of the wildfowl on the lakes," says Mr. Taplin, "are unable to fly in the moulting season, they then betake themselves to the reeds. A net is put by the natives round a clump of reeds; leaders are sent in to drive out the ducks, which rush into the nets and are captured by ropes. Occasionally a black will cover his head with mud and then swim so close to a Duck as to be able to hit it with ease with any weapon he may have with him. When Ducks are flying along a watercourse, a boomerang thrown among them will bring down one or two.

The Maoris are keenly alive to the advantages of hunting the common Grey Duck of their country (*Anas septentrionalis*) during the moulting season. Buller remarks that, 'In the Bay of Plenty district there are Duck-preserves which are a source of great profit to the natives and are jealously guarded by them. From October to February no canoes are permitted on the principal lake and no fires are allowed to be lighted in the vicinity. Various kinds of Duck breed here in great numbers. From feeding on the small green beetle and on the 'ndonaho,' a stringless goat, which swarms in countless myriads all over the waters in the lake district the birds become extremely fat, and during the moulting-season, which extends over part of February and March, they are incapable of flight, owing to the loss of their quills. The strict 'tapu' which is enforced during the close season is now removed with great ceremony, and all the population, men, women, and children start together on a duck-hunting expedition. The men with dogs in short leashes keep within the belt of manuka scrub along the margin of the lake, the women and children pressed to the middle of the lake in canoes, then take to the water and with great noise and splashing drive the frightened birds up into the bays or inlets, where they seek refuge in the scrub and sedge, and are immediately pounced upon by the trained dogs which are still held in leash. The Duck-hunter snatches the bird away from the

dog, kills it noiselessly by biting it in the head, and then throws it behind him to be collected by a party of women who follow on foot for that purpose." In the season of 1867, seven thousand, it is said, were caught in this manner, in three days, on one lake alone. Most of these were Grey Ducks. The bag included also the Black Teal or Scaup (*Polygala nana melanotos*), and the Shoreflier (*Spatula auripennis*).

Tamam Nanpan writes regarding the Grey Duck (*Pelecanus naevi*) that birds of this species are hunted with dogs when advanced in moult (*Tamam naevi*). "The time of moulting is when the birds are fat and not able to fly very well. They are found in pools which they are accustomed to, and they remain there until the moulting time. In the same way the fowlers are acquainted with the pools frequented by the ducks as the moulting time approaches. The owners of these pools do not allow any other people to chase the ducks in them. When the moulting season comes, the fowlers proceed in their canoes with their dogs to hunt the ducks on each day, so long as the moulting lasts. Large numbers of ducks are caught in this manner, as many as two hundred, three hundred, or more. They are then cooked as Hunan (preserved in their own fat). This is the Maori method for preserving birds, and they will keep good for a whole year in the calabashes, if particularly well done, they will keep good for two years." The Maori is expert in capturing wildfowl by swimming after the birds. He jerks them under water by seizing their feet from beneath. The fowler who engages in this diversion covers his head with a screen of bushes or water-plants. The Chinese practice the same ruse. Kua Ayeu thus describes his own observation during a shooting trip: "At the close of a cold December, some seven miles from the walled city of Kiating, near a large pond, I saw a man beckoning to me, and as I approached, he asked me not to shoot the ducks in the pond. He explained that his friend was in the water, so I waited to see what would happen. After some time his friend landed, bearing a large bamboo collar or cangue, and carrying a basket containing a few wild and three tame ducks secured together by a string. He was dressed in goatskin with the wool inside; his stockings were stitched to the clothing, and so obdurate to be nearly water-proof. Thus accoutred, he immersed his body, using the cangue as a float. On his hat were placed bunches of grass, and on the cangue two or three decoy-ducks. He slowly approached the wildfowl, and when near enough

dexterously caught the unsuspecting duck by the leg, and dragged it under water. I watched him until he had gathered nearly the whole lot."

Similarly, the Egyptian employs the stuffed skin of a Pelican as a helmet, under cover of which he is able to work his way among the flocks of wildfowl. Devices of a kindred character have been reported from both North and South America. The practice is pretty nearly universal in those warm countries in which Ducks happen to abound. It must not, however, be supposed that the carrying out of this elementary idea of fowling involves no pains for its accomplishment. The Australian black, low as his intelligence may rank, knows by experience that it is only by the exercise of cunning that he has any chance of outwitting the shy and cautious waterfowl of his native lagoons. When he determines to give chase to a party of Duck, he enters the water far below them, his head covered with flags or rushes, or any water-plant which happens to be growing in the same locality. He is content to swim a long way to the Duck, and only ventures to appropriate the unsuspecting victims of his savage craft when success is certain.

Or again, when an Indian fowler wants to catch some Teal or other Ducks in a tank frequented by wildfowl, he takes the trouble to prepare for operations of an active kind by sending a few empty "chatters" adrift on the tank a few days in advance. Not until the birds have grown familiar with the appearance of the "chatters" does the fowler commence business. When he is satisfied on that point, he puts a "chatty" over his head, and worms his way through the water until he has reached the birds and can pull them under water unnoticed by their companions. While speaking more particularly of the duck-catching of uncivilised men, I ought to observe that even the degraded Australian understands the value of snares in practical fowling. Sometimes a native sneaks along the banks of a river and conceals himself among the rushes and tall reeds until he gets an opportunity of slipping a running noose over the head of some unsuspecting Duck. The noose is tied to the end of a long rod, and is therefore cognate in form to the rod and noose used for snaring sea-birds on St Kilda.

[The headpiece of this chapter is reproduced from a print in the British Museum, and represents flight-less Ducks being driven into a "Pipe."]



CHAPTER XXVII.—SNARING WILDFOWL.

WE saw in the previous chapter that the Australian fowler understands the manipulation of snares for catching the Ducks of his native creeks and lagoons, though his practice is primitive and simple. The Maori fowler also makes use of the snare, but in a different way from the Australian black. Tamaati Ranapiri says: "If a place is found by the fowler which the Ducks much frequent, in a stream, or other place that they come to, or where their food is, snares are made in such places. Should it be a river, the snares are made to reach from side to side, that is in moderate-sized streams; if it be a place where they feed, the snares are placed all round, enclosing the feeding place, and in such other places as the fowler finds to be suitable." Buller independently refers to the Maoris snaring Wild Ducks: "These [Ducks] that escape the dogs are caught by snares set at night. The snares are placed along the margins of the lake and on the warm stones where the Ducks are accustomed to congregate after dark" (*Birds of New Zealand*, Vol. II. p. 254). It is a misfortune that neither Buller nor the native author just cited describe the Duck-snare of the Maori in detail. The plan of stretching a string across the water, furnished with snares, is not peculiar to the Maori, being, in fact, adopted in many parts of the world. The natives of Madagascar

catch the African Wattle-duck (*Sarcodurax africana*) by stretching two rods across the surface of some lake to which these birds resort in the rainy season. The surface of the rods is closely set with running nooses, which intercept the birds whenever they endeavour to cross the fatal line (*Pollen, Recherches sur la Faune de Madagascar*, 2me Partie p. 142). The same race of men catch the White-legged Tree-duck (*Dendrocygna endote*) in large numbers when the birds are moulting and unable to fly. It is in this way that the market is supplied with individuals of both this Tree-Duck and the African Wattle-Duck. To tell the truth, I hardly know any part of the world in which Ducks are not captured at the season of moult.

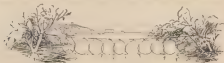
M. Bieschkevski has favoured me with an interesting description of Duck-catching in Siberia, in which he refers to these birds being both captured when moulting, and also in cages which hang across a sheet of water like the devices just instanced. The precise locality in which this gentleman resided in Western Siberia is the district of Narynsk, which forms part of the government of Tomsk. Its superficial extent is equal about to the area of France, but its lived population, consisting of Russians, Finnish Ostiaks, and nomadic Tungus, amounts only to about five thousand souls. The country consists for the most part of low, alluvial land. It contains a great number of lakes and very numerous rivers, all of which discharge their waters into the magnificent Ob. The higher grounds are covered with virgin forest. Agriculture is carried on to a very limited extent owing to the severity of the climate of these high northern latitudes and the vernal inundations, which force the inhabitants to turn their attention chiefly to hunting for such animals as supply costly furs, and to fishing. Wildfowl of all kinds arrive here in such enormous numbers that it is hardly possible to realize them, owing, no doubt, to the favourable conditions under which they can exist here during the warmer months of the year. In the absence of all roads and markets, each individual supplies himself largely and easily with game-birds, hence their value is insignificant. Nobody would even dream of shooting them, as the cost of shot and powder alone is greater than the value of the birds secured by them. The feathered game is, therefore, secured by other means, and the Wild Ducks are held in special estimation, both on account of their excellent flesh and for the soft, warm feathers utilized for bedding.

The Wild Ducks that nest in this region are caught in various ways. "In July," writes Mr Biesickiowski, "the old ducks are moulting, and are too weak to fly, but hide in safe and out-of-the-way places until their new feathers have grown. In the wide expanse of the Narynsk district, there are lakes that attract the moulting ducks in innumerable quantities. Having found such a lake, five or six men with as many dogs approach the water quietly, one of them then rows into the middle of the lake, making as much noise as possible. The frightened birds swim for shelter to the banks, and hide in the grass. Thereupon each man, carrying empty sacks on his shoulder, holding a dog in his left hand by a short string, and a stick in his hand, walks round the lake. The dog spots the hiding ducks, and the man kills it with his stick as it endeavours to rise. Such expeditions are not organised annually; for lakes where the birds have gathered in large numbers are not discovered every year. During the nine years which I spent in Siberia the result of such Duck-hunts only proved considerable upon two occasions. In 1866 six men killed 26,000 birds in three days, while in 1869 five men bagged 38,000. These birds are taken as quickly as possible to Narynsk, where they are plucked clean and their flesh is salted and packed in barrels. So prepared, they sell on the spot at one kopek each, and in Tomsk at a kopek and a half, or one halfpenny and three farthings respectively."

Mr Biesickiowski tells me also that many Ducks are captured by mooses in the spring of the year. The great river Ob, rising in the Altai mountains, and falling into the Arctic Ocean, rolls its waters across the whole breadth of Siberia, and of course traverses regions subject to very different climates. When the warmer spring weather frees the waters of the Ob from their icy prison, in the more northern latitudes a thick and solid crust of ice still hems in their progress. Hence, that river annually rises to a considerable height and spreads itself upon large stretches of the adjacent land, forming, temporarily, inland seas. Almost the whole district of Narynsk, especially that portion which lies on the left bank of the Ob, is then completely submerged. The moment the waters begin to subside, and shrubs and bushes appear above the surface, the inhabitants catch Wild Ducks in snares called 'Plennice' (see figure). In a free passage between bushes, a cord set with horsehair nooses is stretched above the surface of the water, between two banchers, so that the loops just touch the surface of the water. The loops overlap one

another, leaving no free spaces for the birds to swim through. This is the most general method of catching Wild Ducks, in that country, and is used not only by the towns people of Narynsk, but also by the Cossaks. From five to fifteen Wild Ducks are caught in the course of a day in fifty such snares."

Such snares are used too in India, notably in certain parts of the Punjab. Mr C. T. Tickell states that "Horsehair nooses are tied about a foot apart along a stout fishing line, which is laid, supported at intervals by small cork floats, across a suitable strip of open water: when a flock of Ducks has settled near it, one of the trappers shows himself on the



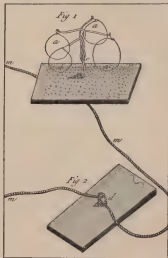
INDIAN DUCK SNARE.

bank or in his boat in the opposite direction, who by manœuvring, if judiciously performed, induces the Ducks to swim against the floating line, which in the innocence of their hearts they take to be a strip of ribbon or weed, and they accordingly dive under it, a certain number emerging on the other side with their necks in the nooses."

Mr Littlehale reports a kindred Indian fowling device, which he finds to be practised on the Null near Ahmedabad. This consists of "a long line of pointed reeds (or reeds sometimes), about 50 yards long. It is laid out over the floating leaves on the lake and is covered with nooses. The ducks feed near it, and occasionally some unwary duck runs its head into the noose. Next morning, if anything is on the line, it is hauled in. The bird is, more often than not, drowned or strangled."

French peasants are, or were, adepts at snaring Wild Ducks. I speak doubtfully of the present, simply because the gun has destroyed so many of the interesting races of old-fashioned sportsmen. The "*Solitaire Inventif*" assures us that it is an easy matter to trap Wild Ducks, referring presumably to the Common Mallard. He directs us to throw corn in a suitable place for Ducks to feed in, and to do so for two or three days until the birds have grown accustomed to resort to the spot to make a

med. The *boursihar* snares, by which the capture of the birds is to be effected, are attached in pairs to wooden stakes which are driven into the ground at the bottom of the water. Sometimes as many as three snares, or running nooses, are tied to the upper end of each stake. Seven or eight dozen snares are set at one time and place. The snares are set in some ditch or other suitable spot, and corn is carefully sprinkled around. The fowler is enjoined to examine his traps every morning and evening, to see what birds have been taken. The snares just described are not intended to be set in water of a greater depth than eighteen inches. Another plan suggested by the same authority is to take a stake about two feet in length, and pierce it across in two directions, so as to allow two cross-sticks, about the thickness of the fourth finger and two inches in length, to be passed through the first-named stake, which thus becomes a centre from which four rods radiate in different directions. Three slip snares are tied to the end of each of the four cross-pieces, and the main stake is planted in the water in such a way that the stakes are hidden and the snares alone float upon the water. Grain is then sprinkled round. A number of



La Grange (after Bulard).

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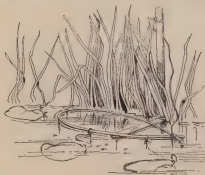
similar composite snares are to be set within seven or eight feet of one another.

An interesting chapter of Bulliard's *Leopoldo de France* is devoted to explaining the system of snaring Ducks known as "La tiline." This device is chiefly practised in Burgundy. To prepare this kind of trap for waterfowl the fowler provides himself with a number of flat tiles, some wire of moderate strength, and a number of horsehair nooses. He then selects a tile, and proceeds to bore a hole through the centre, of such a size that he is able to insert four wires, each of about a foot in length. He twists the four wires into the form of a straight stick, leaving the four ends free in order that they may serve as a support for the snare. Seven or eight of these nooses are attached to each of the free arms of the wire. Care is taken to leave enough wire, on the reverse side of the tile, to serve as a ring, through which the cord, which is to secure this trap to another of the series, can be passed.

In Burgundy, the peasants are content to fix a wooden cross in the tile, instead of the wire tree. The snares are suspended in precisely the same way from the four points of the cross. In either case, whether the snares depend from the crossed wires or from the arms of the wooden cross, the complete trap is set in shallow water, in some quiet nook which is lanted with corn. In order to drive the Ducks out of the ditches or creeks in which no snares have been set, and to ensure the birds visiting the traps, some fowlers set scarecrows in such other tempting places as are thought likely to interfere with the success of their operations. The fowlers of our English fens used in bygone days to take Wild Duck by means of what Markham entitles the "Great Springs."

The mechanism of the "Great Springs" is nearly, if not quite, identical with that of the "Spunt" employed in the north of England for catching Woodcock. Markham mentions in detail the various parts of the "Spring" enumerated in my explanation of the "Spunt;" but he is careful to instruct his readers that the "Spunge" for Wildfowl is to be set in "the furrows and water tracts" in which such birds are accustomed to feed. "You shall make which is most pulled with the Fowle, or which is easiest and fittest for Fowle to wade in . . . This passage found out and chosen, you shall take small and short sticks, and prick them cross-wise overthwart all the other passages, one sticke within halfe an inch of an other, making as it were a kind of fence to

guard every way but one, which you would have the Fowls to pass, and if these sticks stand but above the water a handfull or somewhat more, such is the nature of the fowls that they will not pass over them, but stray about till they find the open way, wherein they will runne swiftly up, pecking up & down for their victuals." The unsuspicious Ducks are thus "entured to goe and wade up the furrow" in which the "Springe" is set "where they shall no sooner touch the Springe either with head, foot, or feather, but they shall presently be taken." In the north of England the "Springe" was chiefly employed to catch Snipe and Wood-cocks. The engine which bore dominion on the English side of the Solway Firth was an arrangement of simple horsehair nooses, known locally, if not universally, as the "Wile." A specimen of the "Wile," supplied to



THE WILE.

me by my kind friends Messrs Mann of Aigle Gill, consists of a long switch, measuring nearly three feet, bent into the shape of a pear, with the two ends overlapping. These ends are firmly tied together. A flat piece of wood, measuring one inch across and ten inches in length, is firmly nailed to the undersurface of the pear-shaped switch. This cross-

piece projects about five inches on one side of the trap. The portion which overlaps is sharpened, to admit of its being driven into the earth. Three or four slipknots of strongly plaited horsehair are tied to the edges of the pear-shaped hoop, secured in such a way that when the fowler plants the "Wile" in the side of some wet ditch the snares float upon the shallow water. The safety of the "Wile" is, or rather was, provided for, as regards any Duck that might be noosed, by the trap being tied by a piece of strong string to a stout peg, which was fixed in the bank side. The possibility of any doubt as to the ownership of any particular "Wile" was safeguarded by the adoption of the simple precaution of cutting the initials of the fowler upon the flat surface of the crosspiece of the trap. A few handfuls of corn or barley were scattered on the mud beneath and around the "Wile." Both Wigeon and Mallard used to be taken in "Wiles" among the swamps which formerly existed upon the southern shores of the Sedgey Flath. Any dishonesty as to the birds taken by the use of the "Wile" had to be assumed for by a summary ducking. This method of securing wildfowl has been very little practised for the last thirty years, owing no doubt to the diminishing numbers of Wild Ducks and the increase in the number of cheap guns. But Mr Clark, an elderly parishioner of mine, remembers the time when many Mallards were snared upon the hecks near Alloway in frosty weather.

The Greek peasants of the Morea capture large numbers of the Mallard (which is as common in that country as with us at home) by the adoption of a very simple form of snare. I have to thank Mr A. L. Crowe for the information which has been supplied to me on this subject by Mr Dionysios Pantagoulo of Calamata. This gentleman reports that a great many Wild Ducks are shot, but the fowlers catch a great quantity in snares in the marshes of Panisus ("on en prend beaucoup beaucoup en *foet* dans les marais du Panisus"). The snare of the Greek fowler is made of horsehair, the strands being plaited together to form a running noose, which is attached to a couple of wooden stakes, as shown in the illustration. This trap is set in one of the narrow passages which the Ducks feed in. It is hidden by the bushes or long grass; indeed the noose itself is often suspended between two growing plants. Snares are used also in the north of Europe for capturing Wild Ducks. Hens describes a method of snaring Wild Ducks which differs in detail from any of the

devices already described. It is used in Sleswig. A line, of the thickness of a man's finger, and measuring from fifty to a hundred fathoms in length, is plaited of three strands of horsehair. A number of running horsehair nooses, each plaited out of six or eight stout horsehairs, are then fastened to the long line, about three inches apart. The engine is placed in a piece of water in which any species of Ducks are seen to dive in search of food. The cord is fastened at the bottom between two stones, and a piece of lead is made fast to the line at every other fathom of its length, partly to keep the line at the bottom of the water,



GREEN BACKSARRE.

and partly to make the nooses stand in a vertical position. Buoys are moored to the spot with string to mark the place where the snares are set, and also to attract the fine birds. It is of importance that the running nooses be made of the best and strongest horsehair, all taken from the tail of the animal, and all of one colour. The horsehair nooses are said to be invisible in the water. They preserve their elasticity as no other material would do.

Lamachus describes another method of snaring Ducks, but it has probably become obsolete. It consisted of a very long line, pegged out upon the ground by a series of wooden pins. A horsehair noose was inserted on each side of every wooden peg, and held in the desired position by a piece of quill. This *Fogel-net* was placed upon a bank above the water in order to trap the Ducks when they went on shore. Another Scandinavian engine is that known as the "*Sj-fogel-fluter*." It embodies the idea of a number of running nooses arranged around the sides of a raft. The raft is constructed out of boards, each of which measures four feet square. Four upright stakes, measuring about a fath in height, are inserted into holes bored in the corners of the raft, and are joined together by a stout cord. This enables the fowler to attach a series of hanging nooses to all four sides. The floor of this floating raft is covered with sods of grass, so that it resembles a green

island. Corn is sprinkled upon the raft. The Ducks quit the water in order to feed upon the grain, with the natural result that some of



FIXED DUCK-SALT

their number become unwilling prisoners in the hanging nooses. This invention is, or was, employed at the break up of frost in spring, and likewise in autumn (*Olives and Hunting for ducks*, p. 137.)

[The headpiece of this chapter is reproduced from an illustration of Heins. The tailpiece represents a Japanese Decoy-pond.]

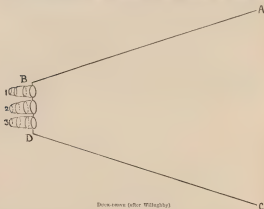




CHAPTER XXVII. THE DUCKS OF EAST AND WEST.

THE Ducks of England owe their origin to the medieval custom of driving the common Wild Duck (*Anas boschas*) and other home-breeding fowl into nets when unable to fly. Trouble was early experienced even in Scotland from the desire of the peasantry to capture wildfowl at a time when the loss of the powers of flight temporarily placed the birds at the mercy of their four-footed and human enemies. James II. of Scotland found it requisite to ordain, in 1457, that none of his subjects should destroy the eggs of "wilde duk and sak lik fowlys." In addition to this, they were expressly prohibited from catching "wilde foulis in mooring tyme quile that may not be" (*Acts of the Parliaments of Scotland*, Vol. II. p. 51). But it was in England, always a more populated country, that the practice of driving Wild Ducks assumed the most serious proportions. Sometimes it led to grave remonstrance on the part of the authorities. Thus in 1622 a Royal Warrant was directed to the Earl of Rutland, Lord Lieutenant of the county of Lincolnshire, as to the Sheriff and Deputy Lieutenants of that county, against the destruction of Ducks, Mallards, Teals, and other fowls in mooring time. It bore special

reference to a place called the "Porsanote," belonging to the Kings Manor of Crowland. The tenants of this place had recently tried to claim the right of chasing the Wildfowl (*Lacusporcum et liberatum occupandi*), and the abuse was to be put a stop to (*Report Hist. Nat. Cam.*, Vol. IV. p. 312). Willughby, writing some years later, tells us that the practice complained of in the Fowling Warrant of James I. continued to exist in the middle of the same century. "In the Fens," he says, "in the Isle of Ely, Norfolk, and Lincolnshire about Crowland, and elsewhere,



Ducks, Wigeons, Teal, and other birds of this kind, at what time they moult their feathers and cannot fly, are taken yearly in great numbers in Nets placed after this manner. AB, CD are Nets extending a great length in form of a wall or hedge, inclining one to another, at the further end of which before they concur in an angle, are placed 1, 2, 3, or more conical Nets, like tunnelling Nets for *Pouterducks*. Which things being so prepared, and the day for fowling set, there is a great

concourse of men and boats. These drive the birds, now unable to fly, into the grounds enclosed in the Nets with long Staves and Poles, and so by degrees into these Conical Tunnels, 1, 2, 3, disposed as we said in the angle. By the way many are knocked down by the Boatmen, and other Rabbie with their Poles, others and more are driven upon the side Nets AB, CDE. These belong to those who own the Nets (for the Nets for the most part have several owners); those fall to their shares that killed them. These which are cusped up and driven into the end-tunnels 1, 2, 3, belong to the Lord of the soil. To one Fowling sometimes you shall have four hundred Beasts meet. We have heard that there have been four thousand Mallards taken at one drive in *Dequay Fen*."

Smoking tactics were resorted to in some parts of France. Selincourt tells us that a great Duck-hunt was held every year on the "étangs" of Ponthieu, at the very time when the Lancashire men were raiding Wiggon, Wild Ducks, and Teal on the English fens. In the case of the royal estate of Ponthieu, the month of July was always chosen for duck-hunting. Many of the peasants of the neighbouring villages were obliged to assist in driving the birds, under the title "of statutable labour" (*taux de corvée*). The labourers were compelled to strip off their clothes and enter the water to drive the birds out of the beds of reed. The officers in charge followed in boats, to see that the drivers advanced in good order. Great bag-nets ("Pannaux") were extended at regular intervals across the lake. I suspect that they were similar in form to those used in England; at all events, they answered precisely the same purpose. The beaters ("Frappeurs"), armed with long poles, gently drove the Ducks, both old and young, towards the nets. Watchers were specially stationed at the end of the nets ("les filets, au bout desquels étaient apostés des gualteurs"). The nets do not seem to have been ranged in a single line, but at an angle, so that when the fowlers had driven a batch of birds into the first net and seized the birds, they drove another mob of fowl to the next net. The sport lasted until they had driven the whole of the "étang." I have little doubt that this plan was introduced into the Southern States of America by French colonists. Audubon, as an Americanised Frenchman, was familiar with the customs of the French who made their home in the new country.

Audubon used to capture the Wood Duck (*Aix sponsa*) in what he terms a "bag-net." This engine resembled the Tunnel-net employed for taking

Virginian Quail. His plan of catching Ducks was to partly enclose the net in a suitable piece of water. He then drove the birds, both old and young, by slow degrees, first within the wings of the net, and finally into the bag. The Dutch and North Germans appear to have been the first to recognise that the principle of the Tunnel-net might be applied to a series of covered canals or "Pipes." When Evelyn visited Dort in 1644, he passed by "the Decoys where they catch innumerable quantities of fowls."

Mr Blauw writes to me that even at the present time "The common ducks, such as the Mallard, Gadwall, Pintail, Wigeon, Teal, and Garganey, are generally caught in the contrivance which we in Holland call the 'Eendekooi, which means Duckcage.' One of the most famous of English Decoys was that which Charles II. completed in St James's Park in the spring of 1665. "The Parke," says John Evelyn, "was at this time stored with numerous flocks of several sorts of ordinary and extraordinary wild fowls, breeding about the Decoy, which for being seen so great a City, and among such a concourse of soldiers and people, is a singular and diverting thing. . . . There were wathy potts or nests for the wild fowls to lay their eggs in, a little above the surface of the water" (*Diary of John Evelyn*, p. 394). The plan of supplying country houses with all sorts of fowls in season from their own Decoys no doubt received a stimulus from the Royal example.

Evelyn visited Mr Donald Onslow at Purford in 1681, and was astonished at the splendour of his entertainment. "After dinner we went to see sport at the decoy, where I never saw so many herons." But the adaptation of the Dutch device was originally carried into practice by a subject, for the first man who made a Decoy in England was Sir William Woodhouse, a well-known adherent of the Stuart cause. The knight belonged to a Norfolk family, and himself owned the property of Waxham in that county. His Decoy is described as "*Peripulum Anatumum, peregrine nomine A. Kage* i.e. *Casum Casus nuncupatum*." Spelman observes that the Decoy in question consisted of an open pond, enclosed on one side with reeds. This portion of the water, which we should call the "Pipe," narrowed gradually. Tame mall-ducks were kept on the "Pipe," and accustomed to range over the neighbourhood. These birds returned from their excursions to their home accompanied by wild strangers, which they had induced to join their flocks. A trained dog

("Cane subdolo ad hoc edotto") would then make its appearance and attract the curiosity of the newcomers by its strange manoeuvres. The birds were thus enticed to enter the "Pipe," when, of course, they were seized by the fowling ("Anstalt"). Spelmann remarks, in conclusion, that Decoys were very unpopular, because they injured the sport of other fowling. Hence the working of Decoys was prohibited in Germany. At what particular time the use of a decoy-dog first came into notice I am unable to say. Tempesta executed the interesting print of a Duck-hunt, which forms the headpiece of Chapter XXVI. This refers to the practice of driving moulted birds into a "Pipe" or Tunnel-net. Thus we are shown punts carrying ladies and gentlemen and their attendant beatmen. The fowls have drawn upon either side of the "Pipe," as though they had but recently converged upon the same central point after driving the wildfowl from opposite sides of the lake. One of the gallants holds a fowling-piece, with the intention of shooting at any birds that might try to turn back. The final close of the manoeuvre is effected by a large water spout, which is shown swimming in the water towards the "Pipe," into which it is forcing the birds. The dog is figured as performing a duty quite distinct from the office of the decoy-dog.

I have not been able to satisfy myself that the Decoy was ever used in Italy.

It would be a mistake, however to infer that Italian sportsmen are indifferent to the pleasures of practical wildfowling. I am indebted to Count Professor Ettore Aringone Degli Oddi, an accomplished naturalist as well as wildfowler, for a number of photos of the Venetian lagoons, upon which an elaborate and ancient system of fowling is carried out under the title of "*La Caccia Di Botte*." The Count has likewise favoured me with a copy of his memoir, *La Caccia Di Botte o Di Valle nelle Lagune Di Venezia*. From this we learn that the great sheets of salt or brackish water, which are comprised in the Venetian Province, are preserved by private owners, who draw a revenue from the fish and fowl which these waters supply.

The various Lakes into which the estuary is divided are separated from one another by shallow banks of sandy clay. These are covered by the Lesser Sea Rush (*Juncus maritimus*) and other littoral plants. Numerous channels and creeks diversify the surface of the estuary at

low water. The peculiar character of the Venetian fowling arises partly from the many curious customs which have been handed down from past generations of local wildfowlers. But the special feature of the sport is, that the gunners are provided with numerous stations, in which they wait for their opportunity to wreak vengeance among the black legions of Mallards and Coots. Each shooting station consists of a small artificial islet, of round or oval shape, sloping inwards or outwards as the case may be. The island is protected from the wash of the tide by ramparts of reeds. The surface of the island, or at least that portion of it which is visible to any fowl that might fly over, is covered with beds of aquatic plants. In the centre of the island is placed the shooting tub, known as the "Bote," which affords shelter to the gunner. The "Bote" is made of oak, walnut, or larch. Of recent years cement has been employed in the place of wood. The "Bote" is built in the shape of a truncated cone, measuring about one metre in diameter at the base. It tapers gradually to a diameter of eighty centimetres (thirty-one to thirty-two inches) at the summit. The steadiness of the "Bote" is secured by iron supports. The fowler does not leave his share of sport to accident. He adopts an elaborate system of artificial or living decoys to lure the fowls within range of his "twelve bore." When living decoys are utilized, they consist of two or more Ducks reared in domestication, usually two female birds (*Anas*) and a single Drake (*Morvan*), which constitute a set (*Mad d'anime*). These decoys are conveyed to the shooting station in a kind of cage called "Tosolo." The decoy is prevented from escaping by being tethered on the water by means of a hempen cord. This latter is again attached to another line wound round a large stone, which is thrown into the water and sinks to the bottom. A substitute for the stone is often provided in the shape of a long stake, which bears an oval piece of wood upon its summit called the "Crozzola." When the stake has been driven into the mud the duck can rest, if tired of swimming, upon the "Crozzola." The fowlers vary the decoys according to circumstances. Thus, if there happen to be many Coots, Pechards, or Wigeon on a lake, only Drake decoys are used, because the call-note of the female Duck is thought to alarm these birds. The same precaution is observed at the end of the season, when Coots and Wigeon are principally shot. Decoys of both sexes are employed indifferently in frosty weather, or when a large number of wild Mallards happen to be present.

Geese are more numerous than Ducks on some parts of the lagoon. To outwit their well-known caution, the Venetian fowler resorts to the stuffed skins of Geese, mounted on wooden frames, and set upon the water in life-like attitudes. Alternatively, he tethers Drakes of a black variety of the domestic Duck, known locally as the "*Canard de Labrador*." The wildfowl which are killed on the Venetian estuaries of the Provinces of Venice and Padua annually are calculated to amount to about 30,000 couples. Count Ettore Arzago di Sestri writes to me that the birds which are sent every year to the Venice market produce a sum of from 70,000 to 100,000 francs. Much of this must be expended in wages to the professional gunners and boatmen, whose assistance is indispensable to the "*Caccia di Botte*."

Grey Geese are scarce on the estuaries of Venice, but Mallard, Widgeon, Teal, Garganey, Pochards, Tufted Ducks, Pintail, and Shovelers are killed in large quantities.

The Italian sportsmen whom I have had the advantage of meeting are accustomed to Duck-shooting of the kind familiar to all Englishmen: in pursuit of which they willingly encounter the risk of malarial fever. Savi, however, tells us that in his day special ponds were prepared for wildfowling. This was the case at Mugello and other places in Tuscany. Such a sheet of water was filled by the rain in winter. It measured about seventy or eighty yards in diameter. Sometimes a low bank, planted with trees, circled the pool. Alternatively, the fowler concealed himself in a little hut. The birds were induced to alight on the water by the natural appearance of the stuffed dummies which were allowed to float upon the surface. The hidden gunner fired from his ambuscade at any birds that were unlucky enough to afford a mark for his weapon. Sport of this kind exactly suits the French conception of what wildfowling should be. Hence we find that the term of *Canardière* has generally been bestowed upon some specially designed shooting-pond. As long ago as 1825, a contributor to Hone's *Every Day Book* described the wildfowling of Picardy. "Every labouring man in France," he says, "has a right to sport and keeps a gun. The consequence is that from the middle of October . . . vast quantities of wild-fowl are annually shot in and about the fens of Picardy, whither they resort principally in the night, to feed along the different ditches and small ponds, many of which are artificially contrived with one, two, and sometimes three little

huts. . . . A piece of ground is raised sufficiently high to protect the fowler from the wet ground, upon which is fixed the frame of the temporary edifice. This is mostly made of osier, firmly interwoven. . . . This frame is covered with dry reeds and well plastered with dry mud or clay upon which is placed, very neatly, layers of turf, so that the whole at a little distance looks like a mound of verdant earth. Three holes, about four feet in diameter, for the men inside to see and fire through, are neatly cut; one is in the front, and one on each side. Very frequently there is a fourth at the top. This is for the purpose of firing at the wildfowl as they fly over. . . . To allure the birds two or three tame ducks, properly scented to staves bent the huts, keep up an incessant quacking during the greater part of the night" (Vol. i. p. 1577).

But the term "Canardière" has also been applied to real decoys, of which several seem to have existed in France at different times. One of the best was on the étang d'Arminvillies en Ille. This Canardière belonged to the Duke of Penthièvre at the close of the last century. M. Suchetet advises me that the only Canardière or Deyoy now existing in France is at Kehl, near Sinsheim. In Holland, of course, there are numerous decoys. The Dutch are naturally jealous of imparting the details of their operations to strangers. Some interest, therefore, attaches to the following letter, sent by Mr Thijssen of Texel to Messrs C. and H. Chandler:—

Texel, 21st October, 1890.—Last week, I had at last an opportunity of visiting one of our duck-decoys ('Koudenkoggen') and of witnessing the capture of some Ducks and Teal. The decoy lies half an hour to the northeast of Koog in a level between low dunes, and consists of a small wood of alder and poplar trees and bushes from three to six metres high, in the middle of which is a pool, fringed with reeds, and twenty to thirty metres broad. From out of the pool run, in the directions of the most prevalent winds, four channels ('Kanaalen'), which at first are five metres broad, but gradually become smaller, and end in a small, enclosed cage of wooden lattice-work. These channels do not run in straight lines, but are somewhat curved. On each side they are bordered by reed-screens two metres high, in which are openings at intervals of four metres. Between the reed-screens a net is placed stretched over the channel. The capture of the ducks is effected in the following way:—The decoy-man ('Kooker') and his dog betake themselves to the entrance of one of the

channels, and the dog then runs up between the reed-screens and the water. The man remains concealed. The ducks which are swimming round in the pond (some fifty tame ones and many wild) become curious at the sight of the dog, and swim into the channel. the man (still out of sight) now throws oats and barley over the reed-screens into the water. In the meantime the little dog continues running about along the water's edge. Attracted by curiosity and by appetite, more and more ducks gather together. As soon as the man perceives that there are enough inside, he shows himself at the entrance. the tame ducks remain quietly feeding, while the wild ones, terrified, fly to the end of the channel, and are there taken in the cage. With a favourable wind (east to north-east) thirty to fifty are readily taken daily. at my visit the take was poor as the wind was south-west. Ducks on passage ('Trekeenden') are chiefly taken "captured" (*Tones, Norfolk and Norwich Nat. Soc.*, Vol. v. Part II. pp. 174-5). The decoys of modern England have received such exhaustive treatment at the hands of Sir R. Payne-Gallwey, that there is no room for anyone else to say much about them.

The kindness of Mr W. Sewell has enabled me to procure a few live Ducks from the well-known Tillingham Decoy, including Wigeon, Pintail, Gadwall, Pochards, and Tufted Ducks. The two species last named were taken only during severe weather. Diving Ducks usually endeavour to dive out of a "Pipe" when they discover their mistake. The English "Pipe" terminates in a net instead of the wooden cage preferred in Holland.

I am disposed to believe that the Decoy was a recognised institution in Northern Germany long before its principles were adopted in either France or England. When George I. of Hesse desired to enter upon working decoys, it was in *Friesland* that he bought up decoy-ducks at the price of a thaler a pair, importing fourteen birds in the year 1574. He had apparently a Decoy already, for we are assured that he captured 102 Wild Ducks with the aid of his newly-acquired birds the same year. In 1575 he employed one Hildebrand of Lich to construct a new Decoy at Bielesheim, between the Rhine and the Moldau. In the same year he made a Decoy out of the pond at Kranichstein. Finding himself short of decoy-birds, and desiring to avoid having to send a messenger to Friesland, the Landgrave obtained four Long-billed Ducks ("lang-schnabliker Enten") from Graff von Solms.

Hildebrand of Lich evidently understood his business, because the Decoy at Richesheim proved eminently successful. The following figures prove how remunerative this Decoy became:—

1579 birds were taken in this Decoy in 1575				
3017	"	"	"	1576
2843	"	"	"	1577
2169	"	"	"	1578
1732	"	"	"	1579
2514	"	"	"	1580
3739	"	"	"	1581
3820	"	"	"	1582
4773	"	"	"	1583
5479	"	"	"	1584

making a grand total of 29,665 Ducks caught at a single Decoy during a decade.

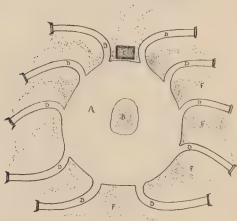
It is not altogether surprising, that other members of the Hesse family aspired to embark in a sport which promised to yield such excellent returns. George I. assisted his brother Wilhelm IV. in starting a Decoy upon his own property. He also presented the Landgraf Moriz with twelve decoy-ducks in January 1593, and sent his own decoy-man in 1595 to see that his Decoy was perfected. A few other Decoys were started in Hesse in subsequent years, but these appear to have yielded unsatisfactory results. The foregoing details, supplied by Landau (*Die Geschichte der Jagd und der Falkerei in hess. Hessen*, p. 300), might no doubt be augmented, but for present purposes they will probably suffice. Friderich states that a few Decoys still exist in Germany, including one near Weath (Rheinpfalz), Weissensee (Thüringen), Malenbourg (Hanover), Rintheim near Karlsruhe, and the islands of Sylt and Föhr. He estimates the breadth of a decoy-pond at one hundred metres, and observes that it should be surrounded with reeds, sedges, willows, and elders. The custom of employing a reddish-coloured dog to allure the fowl into the "Pipe" finds a parallel in the American custom of training a reddish dog to entice Wild Ducks to swim within range of ambushed gunners (*Cf. Wilson, American Ornithology*, Vol. III. p. 129).

I have failed to find any evidence that decoy-pipes are used in any part of the East under the same conditions as those which have so long been recognised in Western Europe. But the actual plan of driving

wildfowl into a tubular net, which seems to have been the original form of the European decoy-pipe, is included among the many devices by which Wild Ducks are captured in different parts of India. Thus Mr Harold Littlehale writes to me that he "has noted some peculiar snares for waterfowl used by the Wagris on the Null, a great sheet of water west of Ahmedabad. The Phansi Pandis use a lozenge-shaped piece of taw-coloured cotton cloth, spread by stretching reeds (two in number), and with a circular hole near the middle, as a screen for stalking or for hiding behind—near water. Their snares for Florican, Partridge and Quail are so like those I sent you (of Wagri make) as to be almost identical with them. They use nooses for taking Peafowl, Cuckoo, Bustard, &c. These are very strongly made of some kind of gut. *They use a long wide-mouthed tubular net for Hares. It has two wings at the sides of the entrance and is distended at intervals by rings of bamboo about two feet in diameter. On the Null, the Wagris use a very similar tubular net, such as a Decoy for ducks is constructed. They take coots and ducks also in the long net at night, crouching on the ground with their skins almost touching the earth, until some unwary bird feeds up into the creek where the Decoy is set.*" I have ventured to italicise a few words of Mr Littlehale's letter, in order to emphasise the importance of his description of this "tubular net with wings," which I conceive to be the parent form of the decoy-pipe. The idea of capturing wildfowl which have ventured up narrow creeks, in accordance with the natural instinct of Mallard and other surface-feeding Ducks, has been cleverly developed by the sportsmen of Japan.

Desiring to obtain the most recent information about the Decoys of Japan, I applied to Professor Ijima for particulars, which he was particularly well fitted to supply, since he is not only a distinguished naturalist, but also an enthusiastic sportsman. Accordingly I quote his description of the Japanese Decoy almost verbatim. The ground plan of a Japanese Decoy, reproduced here from a pen and ink drawing of Professor Ijima, represents an open pond (A), in the centre of which is shown an island (B) upon which the wildfowl rest and sun themselves. Professor Ijima remarks that this islet also tends to keep the birds to the sides of the pond, and encourages them to swim round and round in a circle, thus facilitating their readiness to enter the numerous "Pipes" with which the Decoy is furnished. These "Pipes" (D, D, D) are slightly curved,

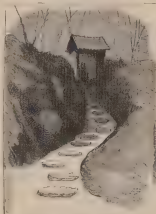
all in the same direction, near their entrances, so that the actual capture of any Ducks that may have entered a "Pipe" cannot be seen by the birds assembled upon the pond outside. Twenty, or even a greater number of "Pipes" are present in a large Decoy. Each "Pipe" is about five feet wide and twenty or thirty feet long, lined on both sides with a low embankment about two feet in height. There is a small space outside the embankment, where the duck-catchers take up their



PLAN OF JAPANESE DECOY.

position. At the extremity of each ditch is a small shed, this is provided with a small perch-hole, and with a bamboo tube, which last slants down to the water. It is through the bamboo tube that the feeding is done from the interior of the shed. There is, besides, a special shed (C), called the "Great Peep," from which one can overlook the entire pond. Feeding is also done from this "Great Peep," but not when

the birds are being caught, at which time it is done only from the small "Proposheds." The feeding process is always preceded by knocking softly on a board with a wooden hammer. The meaning of the sound is soon understood by the decoy-birds (domesticated Ducks and Wild Ducks, with cut wings) which gather to the place where the food (wheat, rice, &c.) is being dropped down through the bamboo tube. The tame birds are naturally followed by the wild ones. The entrance to each ditch is furnished with a wire door. This is usually dropped beneath the water, but can be suddenly raised by means of a string, when the duck-catchers are ready at their positions (F) on both sides of the ditch. The capture of the Ducks is carried out during the daytime. The best hour depends upon the wind and other circumstances of the weather; but



A WAITING-ROOM WITH THE DUCKS-CATCHERS.

generally early morning and late afternoon are the best time. On the day appointed the guests assemble in the waiting-room. This is comfortably warmed by a fireplace on the floor, where charcoal is kept ablaze. Hot wine (i.e., native spirits) is served, and all are pleasant in a manner as only men bent upon sport can be. Meanwhile the decoy-men are busy in feeding the birds. They keep absolute silence, only interrupted by the sound of knocking. Only the forward ditches are used at one time. Suddenly an electric bell rings in the waiting-room. The guests, on looking up, know at once that, at

ditch number so and so, sport is awaiting them. Each of the company, furnished with a sort of a hand-net with a long handle, hastens noiselessly to the ditch indicated. The keeper with beaming face, communicates with extended fingers that so many Teal, Wigeon, Mallards, or whatever it may be, have been enticed into the ditch by his efforts. The



THE LOOK-OUT HOUSE OVERLOOKING THE DECOT.

sportsmen range themselves in a row on either side of the ditch. The wire door at the entrance is quickly raised by pulling the string attached to it. *Wair-r-r-r* go some of the frightened Duck; others try to escape by diving. A skilful 'catcher' may scoop up the first Duck from the water, catch the second on the wing, and then successfully throw out his hand-net in order to reach a third bird that has flown some distance from him. Whereas a novice might triumphantly scoop up a *decoy bird*, much to the amusement of the company, but to the chagrin of himself and the keeper. Usually, a keeper with hawk is in attendance. His task is to bring down the Duck that has escaped

all the nets. The excitement hardly lasts for three seconds. The company then adjourns to the waiting-room until the bell calls them to the next fray. Such Duckponds are not numerous, nowadays. Probably only a dozen of them exist in Tokyo, kept by the Emperor, nobles, or rich men."

This Japanese system of decoying different species of Ducks into "Pipes" presents so many points that will be fresh to the majority of readers, that I venture to supplement the admirable remarks of Professor Ijima by furnishing a translation of Dr Doenitz's essay, *Ueber den Vögel-fang im Japan*, so far as it bears upon the question at issue.

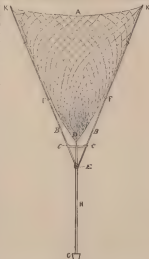
"Among the many ways of catching wild ducks for sport, the most peculiar is by means of 'Kaschers' (a species of net on bamboo stalks). Special lake districts are required for its practice, where lakes can be found containing large areas. These ducks are placed on a suitable lake, and from corners or recesses of the lake small Pipes ('Kamalen') are formed about six feet wide, which, after running a short distance inland change their direction, so that any ducks that are on the pond may not see what is going on in the second section of the Pipe. The edges of the lake, and the spaces between the different Pipes are thickly planted with shrubs. Along the sides of the second section of the canal runs a low dyke about three feet high, behind which the fowlers can pass along without being seen by the ducks which are in the canal. The top end of the hut is built from which, through a fine opening in a thin copper sheet, a view of the entire Pipe is afforded. The nets, which are made of hemp or silk, are spread between two bamboo poles about six feet long and about two and a-half feet apart. These in turn are attached to a third bamboo about six feet long. Furnished with these 'Kaschers' or nets, the fowlers take up their position behind the dykes on both sides of the Pipe, maintaining a stooping posture and carefully avoiding the slightest noise. Suddenly one of the party thrusts his net across the Pipe, cutting off all retreat, and as the startled ducks rise up, they are captured in the nets of the other sportsmen. This has to be done with absolute silence, bran or some similar substance being spread upon the ground to ensure soft and noiseless footing. In order that the company may be at ease when there happen to be no ducks upon the pond, a hut is erected at some distance, wherein the sport-men can gather until such time as some ducks put in an appearance, when the fowlers are instantly apprised of the fact by the noise of a 'clapper' in the hut, which is instantly set in motion by a cord conducted from the pond in bamboo poles. Electricity has lately been used for this purpose. It is considered most favourable when only two or three ducks are in the Pipe at once. When there is a

larger number, one or more are apt to escape and alarm all the other ducks upon the pond. For greater security in this connection, a trained falcon is often kept in readiness to be launched at the fugitive. Not only the true falcon but various other kinds are used. The falcon is always attached to the falcotier by a cord lest it should take it into its head to make an excursion into the well-revered pond on its own account, when its mere appearance over the bushes would scatter the whole flock, as the sight of a Cormorant passing over the district high in mid air is quite sufficient to put the whole lot to flight. A soft piece of leather is fastened round one of the falcon's legs, to which is attached a long cord, secured up that it is easily unrolled from within. The falcon is held in the right hand and then placed upon the gloved left hand, the arm being held outstretched and slightly backwards, ready to throw. Should a duck escape the reach of the 'Kascher', the falcon is thrown violently towards it, and with a few flaps of its wings both it and the fugitive are brought to the ground. The falcotier quickly rises from the ground, the falcon doing its best to dismember its prey in the meanwhile; and in order not to discourage the bird, the falcotier thrusts his fore finger into the duck's body, and, tearing out the heart and lungs, gives them to the falcon while he removes the unfortunate duck. Although this system of duck-hunting involves considerable outlay, it is nevertheless very profitable; from 3,000 to 5,000 Teal having been taken off a single pond in one winter" (*Deutsche Gesellschaft für Natur- und Vögelkunde*, ii. p. 71).

The kindness of my friend the Rev. L. R. Cholmondeley enables me to figure the engine already alluded to as the "Kascher" or Duck-net from a specimen in my own possession. I have also to thank Mr S. Fuki-shima of Tokyo for a neat drawing of this net, in further elucidation of its mechanism.

The net is mounted upon a long bamboo, which is perfectly straight, and measures about four feet six inches in length. The lower end of this handle is furnished with a square block of wood (G). This enables the fowler to balance his net in mid-air, and likewise prevents the smooth bamboo from slipping from his grasp. The upper end of the handle (H) is furnished with a short cross-piece (I), measuring about ten inches in total length. The net is usually made of fine string, and is of a conical shape at its greatest diameter, gradually passing into a purse-shape. A

stent line (A) is stretched between the points (KK) of the two straight bamboo rods (BH), each of which measures seven feet six inches. The sides of the net (FF) are furnished with rings, which enable the net to travel freely along the bamboo rods (BH). These rods (BH) are passed through the two strong rings fixed in the cross-piece (CC), and, crossing one another by a few inches, are firmly bound to the bamboo handle (H) at the point (E). The only free part of the net (D) is secured loosely to the cross-piece by a short string, which catches in a nick provided for that purpose in the centre of the cross-piece. It will be easily understood that when a Duck, rising from a "Pipe," strikes the middle of this triangular net, the force of its flight jerks out the string by which the pointed side of the net (D) is loosely attached to the cross-piece (CC). The net is thus set free, and being rapidly reversed and held down-

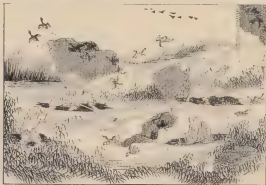


Japanese Duck-Net.*

* This Japanese engine bears a remarkable resemblance to an implement used in the Philippines under the name of the *Tagalog Net*. The latter consists of a triangular net made of *Manis*-fiber, which is suspended between two bamboo rods (230 M. in length), and mounted upon a straight handle measuring 277 M. It has been figured by Kubary, *In: Inductive Zoology*, London, Vol. vii. No. 1, who states that it is principally employed for capturing "Flying Foxes" (*Pteropus*). The native hunter sits in the middle of a tree, and catches the bats, as they circle round, with his long-handled net. Kubary states that he has taken a *Geopelia* (*Copid. melas phoeniceus*) and an Owl (*Nyctus podargus*) by means of this hand-net.

wards, the sides of the net secured to rings (FF) run down the bamboo rods (HH) to the points (KK). The bird is thus enclosed in a loose bag of meshes, and vainly struggles to regain its liberty.

It is difficult to imagine a lighter or more handy weapon. It would be a mistake, however, to suppose that this invention can be manipulated without long practice. On the contrary, great pains are requisite to develop the necessary skill upon which the value of the "sakadou-ami," as this net is called in Japan, entirely depends. The native sportsmen



DUCK-CATCHING WITH THE "SAKADOU-AMI."

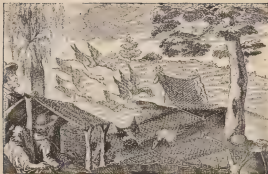
distinguish three variations of the use of their favourite net. The first is to spoon the Duck into the net as the bird is swimming in the water. The second exercise is to catch a Duck as it springs into the air from the surface of a "Pipe." A third feat is to throw a net at a bird which is flying out of reach, and bring it to the ground entangled in the meshes. A common plan of practising with this net requires that one man should stand upon the roof of a house, and throw straw house-sandals (which are used instead of iron horse-shoes in Japan) into the air, while his mate

endeavour to intercept these articles in his net before they reach the ground.

The "Sakabosi-umi" is not limited in its use to Decoys. It is generally employed by the native fowlers of the Echizen, Kaga, Iyo, and other provinces. These men lie in wait upon the edges of morasses in the uncertain light of the glimmering and early dawn, in order that they may surround any flying fowl that venture within reach of their long-handled nets.

[The headpiece of this chapter illustrates the interior of one of the "Pipes" of a Japanese Decoy. It is reproduced, with two smaller engravings, by kind permission of the owners of the *Graphic*. The tailpiece depicts the use of the Japanese Clap-nets described at page 213.]





CHAPTER XXIX. —CLAP-NETS FOR WILDFOWL.

THE Delta of the Nile has been the winter resort of millions of Wild-fowl from remote antiquity. Nowadays European sportsmen expend their cartridges upon the surface of the lakes which were in ancient days the happy preserves of the Egyptian fowler. Then, as at the present day, the native plan of capturing Wild-ducks and even Geese was to take the birds in large Clap-nets, which were surrounded with captive shore-ducks. Mr. J. H. Gurney tells us that about twenty years ago he found that the fishermen of Lake Menzaleh were in the habit of netting Wigeon and other species of Ducks in Clap-nets similar to those which we find sculptured upon the tombs. All the representations of Egyptian Clap-nets that I have seen reproduced are of the same shape as the Italian net known as the "Ando" or "Isenta." This type of Clap-net chiefly differs from the more familiar form of engine only in the fact that the nets are extended in hexagonal form between two strong posts. The nets have two long and four short sides. A good example of this variety of net is figured by Champollion-le Jeune (*Mémoires de l'Égypte*, Vol. iv. Plate

CHASSE.) This shows four stalwart men, all naked save for a loin-cloth, standing in single file at a distance from the nets, which they control by means of the long rope which each man grasps with both hands. The central rope is wrapped around a stout post driven into the soil to the rear of the fowlers ("La corde passe autour l'un piquet"). The fowlers, whose business it is to pull the nets, appear to depend for their directions upon a fifth companion, who has hidden himself behind a clump of Papyrus, in the hope of being thus enabled to detect the movement of the Wildfowl unmolested. Another plate (Vol. II, No. CHASSE) represents a company of seven fowlers in the act of pulling their nets together, under the guidance of their foreman. My friend Mrs H. H. Worthington most kindly photographed for this work a particularly fine example of the ancient Egyptian Clap-net, which she met with at Abydos, in the temple of Seti I., who reigned from 1366-1333 B.C. A variety of Ducks and Geese are represented as being enclosed in the net. Mr Worthington has likewise sent me a sketch drawn by Professor A. M. Worthington of another representation of a Clap-net preserved in a temple at Elfore. These nets are of the usual type used by the ancient fowlers of the Nile valley. In the case of small nets a fowler no doubt worked his nets single-handed. The Dean of Cairo informs me that Teal are netted in the rice-fields at Dametta. A native clears a small square in the squalle, and heaps up sufficient earth to form a floor for the extended nets, which are duly staked out. The native then retires to watch the result of his scheme. When the Teal are tired of swimming, they land on the mound of earth, and of course are taken in the nets, which are worked by a pull-line of eighty yards. Mr J. H. Gurney witnessed the manipulation of the Clap-nets of the modern Egyptian. One of his boatmen placed a small Clap-net at the end of an island, and made a kind of *cave* in which he spent the night. On the following morning he produced a drake Pintail which he had captured in his nets. Mr Gurney gives some interesting particulars as to the netting of Wildfowl on the Nile. The principle of combined labour has always found acceptance in the land of the Pharaohs, and the modern fowlers are no exception to the rule. At the time of Mr Gurney's visit to the Nile the fishermen of Lake Menzalah were liable to be called upon to supply orders of a thousand live Ducks at a time to the Viceroy. The task of supplying this number was divided, each company of seven boats having to supply

about three hundred birds. When fowling operations commenced, the birds were slowly driven by the boatmen to that part of the lake where the nets had previously been laid. "Great care is necessary," writes Mr Gurney, "for if they go too fast or tack too slantingly, the Ducks are up directly, and all their trouble will have been for nothing. The nets are not unlike what were in use among the ancient Egyptians. The men have a rope to pull; they are concealed on an island, and when they see that the Ducks are in the right place, they all unite their strength, tug at the rope, and entrap them before they have any time to swim farther. A couple of forked sticks are seen standing out of the water, and when the Ducks are between them, this indicates that they are in the right place. The net may be about twenty-five yards long, the rope is at least seventy' (*Rambles of a Naturalist*, p. 93).

The use of Clap-nets for capturing Wildfowl was recognised in Italy as early as the opening of the 14th century. Crescentius of Bologna gives a detailed instruction as to the necessary preparations for capturing Wild Ducks with these engines, which he designates in Latin as the "Panthera." The fowler is advised to choose a situation for his sport in the neighbourhood of a marsh. A trench is prepared as a floor for the nets. It measures from sixteen to twenty-five feet in length, and ten or twelve in breadth. It is intended to hold a few inches of water. A fence is erected around the fowling-floor to keep out wolves, foxes, or any other beasts which might otherwise disturb the birds. Two large Clap-nets are then suspended on long staves, the necessary weight to work the pull-cord being supplied by a large chest full of earth. When pulled, the two nets meet like the sides of a house in the centre, thus enclosing any birds which may happen to have alighted on the water. The fowler carefully trains twelve or sixteen Ducks to feed in the fowling trench. These decoys induce their wild brethren to resort to their own feeding-ground. The fowler has only to wait for the proper moment to arrive. When the birds have alighted in the trench he pulls the cord and the nets are reversed. The wild birds then fall into the bag of the net or, in other words, flutter to the end of the pit, which terminates in an angular recess, such as has been described in our account of the "Drosselheid." This early form of the Clap-net seems to have been hexagonal, or similar to the Egyptian pattern of Clap-nets. The particulars of the trench furnished by Crescentius resemble those supplied



Fig. 1. A large rock formation, showing a mass of lichen, Uman River.

by Bargaens, whose account of a youthful sportsman taking Wildfowl in Clap-nets is full of spirit. On the whole, I am inclined to think that Bargaens celebrated the subject in verse with material drawn from his own observation. No doubt he was well acquainted with the writings of Cicerontius. He may therefore have been influenced by his predecessor, but not, I think, to any marked degree. Bargaens explains that the fowling-net should be a trench dug on the banks of a river or in the marshes. The pit in question is to be fourteen braccia in length, and the two parallel sides are to gradually taper away like the end of a top ("a gusc. Dell'acuto paleo"). The trench is only to hold a small quantity of water. The Clap-nets are arranged to cover the artificial floor as soon as the wakeful fowler jerks the pull-cord. The surprised fowl then flutter into the narrow termination of the pit, and are despatched by the triumphant sportsman. Neither Di Valli nor Olina figure or even explain the use of Clap-nets for taking Wild Ducks. But an illustrated work (*Delle Cacci*) was published by Raimondi at Naples in 1826, only four years after the appearance of the first edition of Olina's *Uccelliera*. It is a defect of the woodcuts which adorn Raimondi's small quarto that they are not limited to single subjects. The upper part of one of the plates in this work pictures the employment of Clap-nets for taking Wildfowl. Two fowlers are shown sitting in a log hut, from which they are watching a party of Wild Ducks or Geese. Five of these birds are depicted in the act of alighting beside two captive birds of their own kind which are feeding in the middle of the net. The nets employed are of the usual oblong type, but that on the right hand of the fowlers is rather shorter than the other. The "Solitaire Inventif," writing in 1660, devotes two chapters of the *Runes Insectes* to explaining how Wild Ducks can be netted with Clap-nets. He remarks that the French nets are the same as those used for catching Plovers, or are identical with the "Nappes" used for taking *Ortalous*. They must, however, be mounted upon non staves, and require to be pitched in a foot or at least six inches of water. The upper edges of the nets are also weighted with lead, to assist the fowler in closing them. The success of fowling in this fashion depended upon the birdcatcher being well supplied with tame, full-winged decoys. Seven or eight birds of each sex are required. Some of the females are tethered inside the nets, others are placed on the outside. The males are kept in the hut of the

fowler. When a flock of Wild Ducks makes its appearance the fowler releases one of the Drakes, which at once flies off and circles round the spot with the strangers. Hearing the quack of his tethered mate, the wild decoy-drake alights beside his mate on the water, followed by the unsuspecting fowl to which he has just joined company. If the first Drake liberated fails to execute the desired manoeuvre, the fowler throws out another and then another until the strategy is completely successful. When the company have all alighted within the toils, the fowlers exert their strength to pull the levers, and the sides of the nets are reversed, enclosing the cooed booty. The decoy-birds are marked by pieces of cloth attached to their legs, in order that they may be distinguished from the newly-caught birds when the latter are killed.

The Clap-net seems to have been used by old English fowlers to capture wildfowl. Gervase Markham instructs his readers how to set a single Clap-net in the haunts of wildfowl. The engine employed "would be not above two fadome deep at the most and six in length." This net was "verged on each side with very strong cord and at each side extended out stiff upon long poles." When the fowler had arranged his net, he covered it with grass to hide it "from the view of the Fowle, for they are subtil, and upon the least dislike are gone suddenly when things are thus fitted, you shall lye close and watch their feeding time, and if you shall close by your Net stake down a live *Bron* (formerly taken) for a Stake, & to entice the Fowle within your danger it will be better, making her now & then to flutter her wings, and thus the Fowle coming unto their haunt, and feeding up and down as their natures are, as soone as you perceive a competent number come within the danger of your Net, you may draw your Cord suddenly, and cast the Net over them, and so take at your pleasure, and thus you may doe till the Sonne be almost halfe an houre high, but not after" (*Markham's Pursuivant*, p. 16).

Mr Blasius assumes me that Clap-nets are used in Holland for capturing Wigeon. These birds feed on grass and love to frequent wet meadows. The birdcatcher lays his nets in the favourite resort of the Wigeon, and entices them within reach by the agency of call-birds. The Germans seem to have adhered most tenaciously to the medieval custom of netting wildfowl in the "Entenherd." Bachman discusses the formation of this institution with much gusto. He observes that the fittings of an "Entenherd" or Fowling-floor for wildfowl cost at least 300 thalers. It

is therefore necessary to consider whether such an enterprise is likely to prove remunerative. The fowler requires to work his nets from a suitable hut. This is built over the water, near to or at a short distance from the shore. It stands upon posts, which are driven deep into the bottom of the lake. If the fowler can obtain taken posts, he secures a material that will not rot. The hut is connected with dry land by a small bridge and is concealed from view by reeds or sedges. The bottom upon which the nets have to be must be made level. If it is very muddy, or too deep, the fowler constructs an artificial floor of green turf upon which the nets can rest. The machinery of the Clap-nets is identical with that already explained in the description of the "Drusselhead," but as the bottom of the pond is soft, the stakes which secure the nets require to be of greater length than those adopted on *fron Seem*. The tension-frames must possess great elasticity, in order that the nets may be pulled together upon the water with the necessary rapidity. The fowler cannot work such formidable nets without preliminary practice, by which he obtains the necessary knack. Accordingly, he makes it his business to exercise his skill in pulling the nets over a wooden dummy which is fixed on a stake in the fowling pool. He thus learns by degrees to gauge distances accurately, and to recognise whether a wild bird is swimming within reach of his toils.

The fowler generally wears strong hide boots greased with fat. In default of such waders, he may content himself with encasing his extremities in wooden boots, somewhat similar in shape to a German chum. In these the fowler can wade all over the decoy, provided he has acquired the practice necessary to keep himself from falling. Such implements were formerly in use at the Stickleler ponds, near Gotha. Bachm remarks that one of the advantages of the "Entenhead" is the variety of birds which can be taken within its limits. Thus, for example, a clever fowler will find means of netting Geese, Herons, Water Rails, Sandpipers, and other aquatic species from his hut. Sometimes even the Marsh Harriers will be found to hover within reach of the net.

But the fowler stands in need of much patience, for there will be many mornings on which no birds are taken. Not only must the fowler watch his nets with vigilance, in readiness to avail himself of every opportunity, but he depends also upon the assistance of decoy-ducks for complete success. If the fowler has not supplied himself with domesticated individuals of the Wild Mallard, he selects tame birds that bear

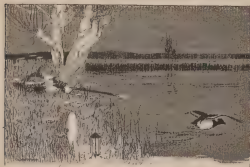
the closest possible resemblance to wild ones. He keeps a couple of these decoys in his hut. When he sees the wild birds lighting round but unwilling to alight on the fowling-floor he opens the window of the hut and lets out a tame bird which cannot fly, but falls down into the centre of the nets. The fowler then releases a second bird, which of course, joins the first. The wild birds imagine that the decoys are voluntarily resting on the fowling-floor, and proceed to follow their example. The fowler now takes a cautious glance round the pool. The more nimble species of Ducks, such as the Pintail, Gadwall, Wigeon, and Shoveller, generally manage to make their escape if they happen to be sitting in the middle of the nets when the fowler closes these engines. Consequently, if the fowler ascertains that examples of any of the foregoing are visitors to his waters, he takes care to allow them to swim right and left, so that they can be distinguished near the dummy or "mark-duck." Adopting this precaution, he is able to enclose the birds in the nets by pulling these last together at the proper moment.

India is such an immense country, that methods of fowling may be common in one presidency and quite unknown in another. In some parts of India large numbers of Teal (*Querquedula caerulea*) and a good many Garganey (*Querquedula discolor*) are netted for the use of Europeans, who keep quantities of these birds in artificial enclosures to supply the demands of the commissariat. Home and others state that, of the Teal procured for such purposes, a considerable proportion are captured by means of large "Flap-nets" or Clap-nets, worked in shallow water. The Chinese also use the Clap-net in certain provinces. Swatow is the great place in China for wildfowl, and no doubt a large portion of the Wild Ducks sent to the market of that city are taken in Clap-nets.

Mr R. A. Currie writes to me that he was introduced to this form of Celestial fowling by an incident. "One day," he says, "when shooting on the marsh at Chung-Shu-Ho, I winged two geese, and while unobtrusively following them across the marsh, got bogged. The marsh consisted of mud mud covered with tangled weeds, through which I had gone up to the shoulders, managing to keep myself from sinking entirely by spreading out my arms and gun on the top of the weeds. From this unpleasant position I was rescued with some difficulty by a man in a tub, who took me to a large patch of reeds in the middle of the marsh, where there was a hut made of, and concealed in, the reeds. In the course of conversation

he told me that he was a duck-metter, and through a rude window pointed out a patch of water about 20 yards long by 15 wide, on which five or six decoys were swimming about. The two nets, he said, were lying just under the water, and the tops of the poles on which they worked were just visible. When a number of ducks, attracted by the decoys, alighted on the water, the nets were pulled by two bamboo ropes about an inch in diameter, which were led into the hut. The nets clapped down on them, and the birds were caught, so he said. It was very hard to get any information out of him, as a Chinaman is very suspicious and does not understand anyone's wishing to know a thing for the sake of knowing it, and he probably thought that I would be starting a rival net. He refused to pull the net to let me see how it worked, and would not let me do it. The decoys were wild ducks, reared from eggs found in the marsh. The roof of the hut had reeds stuck in it upright, so as to be indistinguishable from above by ducks coming to the decoys. When I had scraped off most of the mud with which I was covered, the man put me on a path made of reeds laid on the tangled weeds and begged me not to shoot in the neighbourhood."

The *hougon* is reproduced from Kamemshi's work, *Delle Caccia*. The *hougon* illustrates the sport of *hougon* described on page 294.]





CHAPTER XXX.—FLIGHT-SETTING IN JAPAN

THE practice of stretching perpendicular nets in the line of flight which Ducks are observed to adopt in journeying to and from their favourite feeding grounds finds employment for the fowlers of many lands. The Japanese are as clever in netting Wildfowl as in taking them with birdlime. Captain Blakiston remarks that numbers of netted Wild Ducks are brought for sale to Hakodadi. "For Ducks and Teal," he adds, "the usual method is to clear away the grass from a swamp for a space of about 35 by 20 yards, so as to form a clear surface of open water, likely to attract the birds at feeding-time. Across this several nets are stretched, which are fastened to cords attached to stakes on either side, and hung vertically over the water, being about two feet above it at the bottom and about 5 feet high. The net is made of fine twine, and with large meshes, so that it is not easily seen, and easily entangles the birds when they fly against it in skimming over the surface of the pool before alighting. The evening is the principal time for the operation, and men sit watching the nets from small turf huts or screens made of branches. These duck-catchers mostly occupy themselves in cutting grass during the day. In October I saw a great many of these places,

and probably the same plan is adopted in the spring" (*Ibid.*, 1862, p. 332). The usage just described appears to be nearly or quite identical with Duck-catching by means of what our Japanese writer calls the "Harikiri-net," intended to catch Wildfowl on dark nights, though the engine described under this title is of greater size than the nets which Captain Hakinson met with. The "Harikiri-net" has a square mesh. It measures from 90 to 120 feet in length, and from 7 feet to 10 feet deep. The net is stationed in a rice-field, moat, or pond to which Wildfowl resort regularly. The net is strained between tall bamboo posts, and the lower portion forms a bag into which the birds flutter down after striking the net. Several similar nets may be pitched in a favourable spot. The Japanese fowler watches his nets to prevent the foxes from tearing the birds out of such nets as happen to be extended at the side of the water. When any birds are meshed, the fowler wades into the water and places them in a circular basket, which is covered with network and slung over his right shoulder. The Japanese are also practised in the manipulation of nets worked by pulleys. The engine employed for this purpose is the "Okoshi-net." It is not intended for the plain, but for an elevated summit. The fowler chooses the brow of a mountain which is occupied on both sides by rice-fields, ponds, or marshy grounds. He erects two great posts on the ridge of the hill. A long hempen net, made of two square inches' mesh, 40 feet in depth and 150 feet in length, is extended between the posts. The net is provided with pulleys, by means of which it can be raised or lowered at the desire of the birdcatcher. The net is worked by two men, one of whom is stationed at each end of the net. From October to the end of spring the flocks of Wildfowl are found to cross the summit of the hill at dusk, and again in the grey light of breaking day. The men watch for the right opportunity to hoist the net from the ground. A leader (in winter a male, in spring a female bird) usually heads the main body of Wildfowl that wing their swishing flight from one marsh to another. The fowler is careful to hoist the net as soon as the first bird or the first few birds have passed. He thus intercepts the main body of Wild Ducks as they follow in the wake of the pioneer. The "Yakkiri Ami" is brought into operation with a view of capturing both Wild Geese and Wild Ducks when passing through the passes of the mountains. The net in question is nearly identical with the "Okoshi-net." The fowler

chooses as the scene of his labour a narrow mountain gorge which he has ascertained to be a connection between two different haunts of Wild Ducks. Instead of fixing the pulleys of the net to strong posts, he secures these implements to the highest trees that happen to grow on either side of the pass. If trees are absent, the pulleys are fastened to the sides of the rocks which unite to hem in the gorge between their opposing flanks. The ropes which span the space through which the birds are expected to pass are attached to the net by being threaded through a series of rings made of deer's horn or bamboo. The double ends which bear the weight of the tools pass through the pulleys, and are secured at the bottom of the trees. The net, when not in operation, is allowed to rest on the ground, or on the stubble, should the net happen to be stretched over a cultivated field. When the passage of birds is numerous, the watchful fowlers instantly hoist the nets, and thus arrest the impetuous flight of the surprised birds, which anticipate no obstacle to their favourite course. The consternation of the birds which suddenly find their favourite stile blocked by a vast net, and have no time to retrieve their fatal error, must be tragic. The fowlers allow their victims no chance of escape, as soon as the main flock of Ducks or Geese has flown against the nets the ropes are slackened, and the nets fall to the ground, enclosing the fluttering prisoners in their treacherous meshes. The length and depth of the nets employed vary according to the requirements of each valley, but a net is often 50 feet in height and may be as much as 162 feet in breadth. The same method is brought to bear upon wildfowling on the banks of ponds and in other open situations. But in the latter case the nets have to be fixed between posts instead of between growing trees. If this kind of net is used in an ordinary situation, such as a wet swamp or inland lake, the birds are first allowed to settle for the evening on the water. When the fowl have descended without fear, and are in full enjoyment of their customary quiet, the fowlers left in charge of the net silently hoist the folds of meshes between the supports. A third man is then sent to drive the birds, which he endeavours to direct into the net. As soon as the birds come into contact with the opposing nets, the fowlers haul down their nets. The birds and nets fall prone together, to be disentangled by the birdcatchers.

It will be seen from the foregoing observations that the Japanese

fowler is equally adept at capturing Wildfowl with fixed nets and with those which are hoisted into position by a carefully devised system of weights and pulleys, the latter system not being confined in action to the swamps of the plain, but being practised on the spurs and in the defiles of the mountains. Of course, the details of the nets differ in the various islands which compose the kingdom of the Mikado. Whether these nets are actually indigenous to Japan in their origin I am unable at present to decide. But there can be no doubt that the use of the flight net is understood in certain Chinese provinces. Mr C. B. Rickett reports that the fowlers of the Min River catch Duck and Teal by planting perpendicular nets on the marshy islets in the tideway, supported between thin bamboo uprights. The birds enter the nets during the night-time. Allusion has already been made to the circumstance that the Australians adopt a similar course of tactics in netting Waterfowl in nets that span their creeks and rivers. It may not be out of place to remark that the Colombians adopt a similar course of tactics. Mr Arthur Kemp favours me with the following remarks contained in a letter dated from Bendigo, Victoria, 1895:—"The following is one method practised with considerable success on our northern creeks and billabongs. A large net, the width of the stream where operations are to be carried on, and about thirty feet in depth, with something like a two-inch mesh, is stretched across and secured to a tree on either bank, the lower part of the net being a couple of feet from the water. It is provided with two rows of pockets, one a little above the centre, and the other near the bottom, the lower ones being larger [that is wider], and generally a little deeper, than the ones above. In the evening and early morning, and also during the night, the ducks very frequently fly at a tremendous pace close to the surface of the water following the creeks either up or down and from their great velocity are powerless to stop themselves before reaching the net, even if it is observed. They strike the net with great force and usually get their necks caught at the first rush, but as a rule they seem to get clear of where they first strike, and, after a more or less protracted struggle, fall back into the pockets, when they become hopelessly entangled and are secured by the netter in the morning. Most of the ducks are practically unhurt and the netter places them in crates until he has sufficient for his purpose, or sees the opportunity of a favourable market, when they are killed by means of a large strong needle which

leaves no mark. All kinds are caught in this way, but mainly they consist of Black Duck [*Anas superciliosa*], Teal [= Chestnut-breasted Duck (*Anas castrovi*)], Wigeon [= Whistling-Tree-Duck (*Dendrocygus gambeli*)], and Mallard Duck [= Mallard Goose (*Anas platyrhynchos*)] all of which are instigable birds. The sportsman and the men who catch ducks in this manner mean anything but the best of friends, so the matter is cautious enough to remove his nets in the daytime, as even if it is proved to be legal he stands a very fair chance of having to provide a new net whenever a gun appears on the scene. The only other way I know of getting ducks in a wholesale manner is by means of the switch-gun, and I suppose this, though against the law, is carried on wherever wildfowl are numerous." The great lakes of India afford a winter home to myriads of the Wildfowl which annually rear their young among the lonely tundras of Siberia. It is natural, therefore, that many of those which wing their way from Arctic frost to Indian sunshine should surrender their liberty to the wiles of the native shikaree. Mr A. O. Hume says that the nets used for flight-catching are made of twocinch mesh, which is the size of mesh generally used elsewhere. The Indian net is about fourteen feet in depth, and measures a hundred yards in length. As many as half-a-dozen nets may be used in conjunction in a suitable locality for fooling. Each net is mounted upon twenty-one strong and light bamboos. These supports are sixteen feet long, and are painted a dull lead colour. The net is dyed with a weak solution of indigo. The lookers carry their engines to some shallow shoal which they know to be much resorted to by Wild Ducks. There arrived, they proceed to erect their toils in the water, at a distance of at least one hundred yards from the shore. Each sheet of netting takes twenty-five minutes to erect in the desired position. As each section of the wall of network is completed the lower folds of the net are thrown up over the upper margin of the same, so that any fowl which happen to be spending the hours of daylight on the lake can swim to and fro beneath the toils without suspecting danger. Just at dusk, and before the various species of water birds begin to arrive at their various rendezvous, the fowlers pull down the underside of the netting, so that it hangs perpendicular. The sport does not begin as soon as the Ducks return to their beloved morasses. An interval of time is allowed to permit the birds to settle down comfortably to their evening meal. About 8 or 9 p.m. the

fowlers enter the water at a distance from the nets. When possible each fowler provides himself with a living screen in the shape of a trained buffalo, and walks slowly backwards and forwards at right angles to the direction in which the birds are to be driven. The fowlers are always approaching nearer and nearer to the birds, which swim steadily in the direction of the long wall of netting in front of them. When the bulk of the Wildfowl has been forced within a short distance of the netting the leader of the party fires a gun. At this signal the whole company of hunters shout, splash and run towards the nets. The birds spring up into the air in wild perturbation, and many of their number had themselves detained by the meshes of the nets. A fowler who drives a tame buffalo before him can approach within ten yards of the Wild Ducks, since these birds are accustomed to regard the buffalo without concern. Great quantities of Wildfowl are captured also in Northern Persia, particularly on the shores of the Caspian Sea.

Holmes records that he met with the nets of the fowlers among extensive banks of reeds. The men passed the night in small reed huts. Two methods of taking the birds were found by this traveller to be in vogue on the southern shores of the Caspian. The first of these was a modification of the Chap-net, such as we know to be resorted to in some other localities. "A large net," says Holmes, "is fixed upright, and kept in that position by a long cord held by the fowler, who is concealed among the high reeds. Decoy-ducks are placed within its range, and on the Wildfowl alighting among them, the string is let go, and the net falling over the birds makes them fly upwards when they are caught in the meshes." The other method adopted by the fishermen whom Holmes visited was that of perpendicular Flight-nets, such as have been already described in this chapter. "In many places near the coast are extensive swamps, the resort in winter of immense numbers of wildfowl, where long nets are suspended to high poles in various directions, and below them are placed decoy-ducks, tied by the legs to a short piece of twine, which is fixed by a peg in the bottom. During the night the wildfowl are attracted by the cry of the tame birds, and flying low, are caught by the neck in the meshes of the net" (*Sketches on the Shores of the Caspian*, p. 67). Vast numbers of Wild Ducks are annually netted in the wilds of Siberia by means of nets suspended in the line which the birds strike in crossing from one to another of the forest lakes. Bismiekiński writes

to me that he has a plausible recollection of this form of fowling, with which he became acquainted in the government of Tonkin. "When two large lakes," he adds, "lie close together and are both surrounded by a forest, the inhabitants take advantage of such a situation in the following

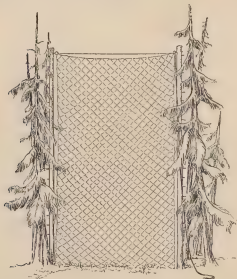


Diagram of SUGIYAMA NET.

manner. They make a clearing, fifteen paces wide in the narrow part of the wood which separates the two adjacent lakes. In the middle of the clearing they fix two strong posts (provided with pulleys),

which are driven firmly into the ground, so that the tops of the poles are on a level with the summit of the adjacent trees. The fowlers

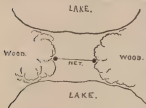


Diagram of Clearing between Two Lakes

attach a Flight-net to the two pulleys, so that the net can be lowered or raised at pleasure. The net is nearly as wide as the clearing itself, so that the latter is completely divided by the net. In the spring a very great number of wild ducks are caught by this arrangement, locally called 'Pierewica.' Most of them are caught in the twilight, and just before daylight.

During the night but few are caught, and in the daytime the wild ducks see the apparatus too well to be caught in it. When the birds, flying from one lake to another, strike against the outspread net, the man who attends to the pulleys suddenly lets the net fall to the ground, thus covering the birds entangled in it. To satisfy my own curiosity, I took part several times in such expeditions, and always witnessed satisfactory results, for, from twenty to forty birds were taken each night. Such an arrangement, if fixed in a good locality, is highly prized, and according to local custom becomes private property, passing from father to son."

The experiences of Mr. Biesickierski are independently corroborated by Dr. Otto Finsch (*Reise nach West-Sibirien im Jahre*, 1876, pp. 603-4). "In the thickets near the shore," writes Finsch, "clearings are often seen, leading from the river bed to some open water farther away. These openings ('*Plach*'), cut out in the wood, are by the waterside furnished with nets about 60-70 feet long and 70-100 feet wide, fastened to the trees on either side. When the ducks that are fond of using these paths, fly against the net, it falls down and makes them prisoners. This method of capturing ducks is followed during the time of migration from the 8th to the 15th of May, and from the 15th of August until the month of October. They are taken in great numbers in the early morning and late in the evening, though also in moonlight nights and by day. Even at this time the birdcatcher will not be noticed by the ducks, though

sitting only a few paces from the net and not very carefully hidden. Fifty ducks are often caught in one night in the same net. It often happens that Geese and Swans are caught in the meshes, and this is not a pleasant surprise to the birdcatcher, as they generally tear the net. The Ostricks have a very simple way of killing the ducks as they break their necks with the teeth. The great number of ducks caught in this way, and dried in the smoke of the Tschum, a method that does not make them very tempting to the appetite, serves as food in winter. Our guide was present when one hundred ducks were taken in such a net, and declared that the spoil often amounted to several hundred birds. . . . Later naturalists have also stated that lassos or slings (*Hemici*) are used with advantage in the capture of ducks. The Solonian peasants generally fumigate them with worm-wood to protect them against the 'Evil Eye,' a superstition common among the Ostricks."

The system just described is not peculiar to Siberia, so the Ural. Mr Norman Douglass writes to me that in parts of Russia—Voronezh, Orenburg, &c.—large nets are loosely hung to two poles by the two upper corners, cords are fixed to these, passing through rings that are loosely fixed to the tops of the poles. These nets are stretched at dusk across some narrow path between two woods, where the birds are accustomed to pass towards night from their feeding grounds. They fly low at dusk, and strike the net. The sportsman loosens his hold of the cord, and the net drops and entangles the fowl. Deceys are also employed, but not apparently very systematically; they are most usual in the Polish provinces."

It must not be supposed, however, that it is only in the interior of Northern Europe that Flight-nets are employed for taking wildfowl. Prior to the invention of gunpowder, nets were systematically used on the coasts of Scandinavia, for the purpose of providing the resident peasants with their share of feathered spoil. Odmann states (*Königlich Patriotische Sällskaps Hushållnings Journal* for 1786, p. 310) that the Samoyedes seem to have carried their bird-catching devices from Siberia to the shore of the White Sea, where they were practised at the time of Olaus Magnus. The bird-net has, however, been used so long on the Swedish coast, that it is named in the oldest Swedish game-laws as being "the right of the coast peasants." The use of the Swedish net is based on the fact that many species of waterfowl pass the night on the sea, but

repair at sunrise to the islets near the coast to seek their food in shallow waters between the islands. The birds mostly flight at a height of only six or eight feet above the water, and usually steer a similar course. The net which is, or was, employed measures four fathoms in depth, and from thirty to one hundred fathoms in length. It is made of strong thread, with four inch meshes. The upper margin of the net is furnished with rings placed at intervals of a yard apart. The net is stretched over the narrow sound between two islands. A post called "Hakslags-strungen," thirty feet in height, is placed on one of the islets. To this a rope is secured, and afterwards drawn as tight as possible in a line to the adjoining island, where it is fastened round another similar post to the first, called "Kallsangen." When the folds of the net have been hauled into position, the net hangs like a curtain across the narrow strait, and bars the flight of any birds that try to pass that way. Pulleys are attached to the net. As soon as the fowlers see a flock of Eiders (*Neomateria melanotos*) or Long-tailed Ducks (*Harelda glacialis*) approaching up to the net, which is invisible to the birds in the broken light, the men slacken the ropes and the net falls on the birds just as they enter its meshes; consequently the net falls into the sea, bearing with it the fowl which have become entangled in its folds. If the net is not lowered as the birds strike its meshes, there is a probability that some birds will break through and make their escape. The most favourable moment for this form of fowling is when a light breeze is blowing. The net cannot be worked successfully in stormy weather.

In former days our English fowlers used Flight-nets to catch wildfowl, which then frequented our brooks and rivers in greater numbers than in the present era of punt-guns.

Gervase Markham, who, by the way, was a Nottinghamshire man, advises his reader to use triple nets for the purpose of such fowling: "These Nets shall be lined on both sides with false Nets of strong pack-thread, every mesh being very near a foot and a half square each way, that as the fowl striketh either through them or against them, so the smaller Net may passe through the great meshes, & so straiten and intangle the Fowle." He adds that these long and narrow nets were to be "pitched for the Evening flight of Fowle, before Sunne set: and you shall stake them fast downe on each side of the River, about half a fote within the water, the lower side of the Net being so plumb that it may

sink so farre, and no more, then for the upper side of the Net, you shall place it slantwise shewing against the water, yet not touching the water by a foot and a halfe at the least, and the strungs which supports and holds up this upper side of the Net shall be fastned to small yeelding sticks, packt in the banke, which as the Fowle striketh may yeeld and give libertie to the Net to runne and intangle the Fowle."

Sometimes the old-fashioned sportsman, having set his nets, fired a few shots in neighbouring localities, with the view of driving the birds to seek their food in the undisturbed retreats which were already encircled with his slanting nets. Simple as were the devices for netting birds practised by Master Giovanni Markham and his contemporaries, it would be an error to suppose that no innovations were introduced as time passed, from foreign parts.

The Pochard has long been a numerous winter visitor to the Essex coast. Its superior craft and pertinacity in escaping from the machinations of the decoy-man led to the adoption of a Dutch mode of compassing its capture. I refer to the 'Flight-pond,' described in the fifteenth chapter of Folklard's well-known work, *The Wild Fowle*. The idea seems to have found its first imitation at Mersen in Essex, and to have been extended to Goldhanger and the Old Hall Decoy, Tolleshbury in that county, and to Brantham in Suffolk.

Dr J. H. Salter writes to me that he has shot and rented the Old Hall Decoy for nearly thirty years. He considers Folklard's description of Pochard-netting to be substantially exhaustive. The custom of netting Pochards became obsolete at the Old Hall Decoy prior to his own tenancy. "Some remnants of the poles and irons still lie about in the Decoy yard." He adds that the outline of catching Pochards in the "Flight-ponds" was as follows: "Seeing that these birds, which collect in large quantities on this coast in winter, cannot by reason of their formation, rise quickly into the air, like ducks, but skim the water for a certain distance before getting into their flight, nets of about 50 yards long by 18 feet deep, were placed on poles, so fixed and adjusted by weights that they could be quickly moved up and down by the aid of ropes and pulleys, so that, as soon as the fowl were flushed and made to fly in the direction of the nets, the nets were raised and thus intercepted their flight, the birds tumbling down in scores and at the foot of the net, where receptacles were made ready for their reception and from which they could not

escape. Humblocks used to be taken in this way at a single haul." The illustration given at page 89 of Folkard's *Wild Fowls* explains the peculiar formation of a "Flight-pool." It will be seen that four Flight-nets were provided, in order that the fowlers might be able to take the Pochards with any wind. The first birds which reached the net were allowed to pass over in order to encourage their following, which struck the net just as it was newly hoisted into a perpendicular position from its usual horizontal plane between the posts to which it is lashed. Enclosures called "Pens," made of reed screens, occupied the bank between the net and the water. When the Pochards struck the meshes of the net, they flattened down pell-mell into the "Pens."

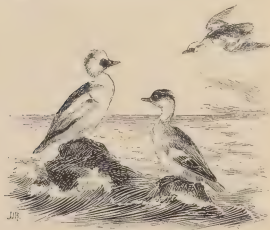
Mr W. Sewell writes to me that "We have not done any Dunbird catching at our Derooy, never having as a rule many in the pool, never more than from 20 to 50 except one year—in 1870,—when we had from 700 to 800. They drove all our other birds out. Not being able to catch them owing to their diving, we shot them, shooting over 70 the first day and over 200 in all, as they persisted in returning every day for over a week." This relates to the Tellingham Derooy.

Not only are Pochards difficult birds to take in a Derooy, but Mr Southwell says that they inspire other birds with their own restlessness. I cannot say that I have found the Pochard to be a more fidgety species than any other species of Wild Duck; but, then, I have only met with small flocks of Pochards, which are doubtless more easy to approach than large flocks of the same species. I imagine that the live Snawa which are sometimes imported into this country must be taken in similar nets to those just described; indeed, it is almost impossible to take these shy, diving Ducks in any other way.

In Greece the Flight-net is a simple affair, being a long net stretched perpendicularly between two banks of reeds in the marshes which are resorted to by wildfowl. Lindermaier gives an interesting explanation of the manner in which the Greeks drive the birds into their staked nets: "The Kopai lake covers several square miles, and is overgrown with flags, and rushes; in this wilderness of rank vegetation there are long passages of open water, these being too deep to allow the water-plants to take root. When the winter approaches, these places are fitted with nets made for that purpose; and on the evenings when the snow drives the Ducks down, a couple of boats are manned, each being provided with a

lantern and bell. These boats are rowed from different directions to the place where the nets stand, the Ducks do not fly but swim away from the sound of the bell and the light, until they get entangled in the nets. Not only are Thebes and Iuvada supplied with abundance of Wild Ducks from thence, but several hundreds have been sent to Athens in one day' (*Die Vogel-Geschichte*, p. 161). These remarks are supplied in Linkenayer's account of the Mallard, which seems to be the commonest species of Duck in the marshes of that country. Other species of *Anas* are no doubt taken along with the Mallards.

[The hemisphere is reproduced from a Japanese work - *Illustrated Methods of Hunting*.]





CHAPTER XXXI.—NETTING AND LIMING WILDFOWL.

IT has long been the custom of seafaring men to sink nets under water on purpose to entangle *Scoters* (*Ochotona*) and other members of the *Falco* genus when diving in search of the *Mollusca* which form so large a portion of their subsistence. The ancient practice of the Chinese duckcatchers of the Min River was more advanced than that of most other fowlers. Mr. Rickett observes that their hereditary wage has become obsolete in consequence of the modern supply of guns. Formerly the Chinaman spread his net "parallel to the surface at low water and the fowler concealed himself near by, armed with a piece of wood, a board about a foot square, weighted with lead. The Teal drifted in on the rising tide, and as soon as a party of them were over the net, the man skimmed the weighted board over the birds, which, mistaking it for a Hawk, dived, and were entangled in the net below." This method was followed in the Fokkien province. It recalls the practice of the

Australian ducks mentioned at page 236. The Indians also are familiar with the principle of frightening birds into a net by the descent of an imaginary Hawk. Sometimes they used an artificial Kite to drive even small birds into the "Spider-net." But it does not seem to have occurred to the wit of the Danish wildfowler to have recourse to a similar strategy. He is accustomed, nevertheless, to capture large quantities of Diving Ducks, chiefly Tufted Ducks (*Fuligula cristata*), with a submerged net, known as "Della rete sott' acqua." This engine consists of a great, wide-meshed net, furnished with a series of cork floats, so that the upper portion may be on the surface of the water. This net is held suspended by four or more ropes, which are attached to its several corners. It is also weighted with stones or pieces of lead, to facilitate its being lowered to the requisite depth. The fowlers are careful to ascertain the precise spot at which the "mouth da tulle" (= Diving-duck) are accustomed to feed. The birds descend to seek their food at the bottom of the water. As they return to the surface many of them dart into the meshes of the net from which they vainly struggle to extricate themselves. A similar practice is or was carried out upon the shores of Schleswig the wild birds being lured to the spot by artificial decoys. These are sometimes used as floats for the nets. Otherwise they are moored upon the water in the vicinity. The net requisitioned for this purpose measures, says Hemm, at least forty fathoms in length, and is spread out in such a way that it stands vertically in the water. Care is taken to prevent the vertical net from being too tightly stretched, lest it should be damaged by the waves dashing against the dummies. Two other nets are laid at some distance from the first net, which they exceed in size. These nets are set on either side of the first net, forming a bow, the ends of which touch the ends of the vertical net, thus making a complete enclosure. The two outer nets are entirely under water, buoyed up by small floats of wood or hollow tin, which are not visible on the surface of the sea. The Sea Ducks join company to their imaginary companions, and soon commence to search for shellfish at the bottom of the sea. Some of the birds avoid the nets, but many of their number are entangled in the walls of network which hem them in. The fishermen of Heligoland are adepts at capturing the Common Scaup (*Elanus nigra*) and other salt-water fowl by means of nets. Herr Gietke states that even the White-eyed Duck (*Fuligula nigra*) has been taken in the waters of his island

home. But the Goldeneye (*Tringa glaciosa*), Long-tailed Duck, and Scaup are the customary victims of the sea-nets.

The nets used at Heligoland are not of the continuous pattern used on the Schleswig coast. Gierke says that the former are made of strong twined, with large meshes, and measure three fathoms square (= 18 feet). Gierke has fastened to the edges of these nets to enable them to rise and fall as the tide ebbes and flows. The nets are not set in deep water, but in the shallows near the island, so that they are left uncovered at low water. A line is tied to each corner of the net, weighted with a stone at the lower end. This precaution steadies the net. The lines are of such a length that when the tide lifts the netting the folds of the net are stretched out horizontally a little below half-high tide mark. The Ducks pass over the nets as they chase the crustaceans and little fishes which are found in the shallows, and become meshed in the strands of twine. Night time yields the richest return to the netter. The birds are then bolder in swimming near the shore than during the hours of daylight, as well as less able to detect the whereabouts of the submerged nets.

The cockle-gatherers who earn a precarious livelihood upon the mud flats of the Lancashire coast were formerly in the habit of setting nets to catch Scaup and Scaups in the vicinity of their favourite feeding-grounds. Indeed, it is quite possible that the practice in question is still in vogue, though the fisher-folk assured me on my last visit to their neighbourhood that the Duck-nets were seldom required, since the large flocks of Scaups had shown a disposition to retire to more sequestered quarters. The nets used by the fishers were of different sizes, but usually measured about four feet in breadth, and were staked out on the sands at low water. The birds were taken when the swift-moving and treacherous tide had covered the immense expanse of estuary which stretches away from the banks of Fleetbrough and Annan, ever travelling westward until at last it merges unperceptibly into the uneasy waters of the Irish Channel. It is reported that large numbers of Scaups were taken in fishing nets in the Forth during the winter 1895-6. Mr J. A. Harvie Brown states, on the authority of Mr Lloyd Patterson, that many Pochards have been taken of recent years in nets sunk on the shores of Lough Neagh. The fishermen of Normandy occasionally make big hauls of Scaups and other seabirds in the nets which they stake on

the feeding-grounds of those fishy birds. M. Gideau de Kerville records that on the 30th of March 1885 a no less distinguished visitor than an adult male Surf Scoter (*Edemus perspicillatus*) was obtained at Merville "dans les filets à Macreuses." He writes to me that this *scot* was shared the fate of more ignoble fowl becoming entangled in one of the nets set to secure examples of the Common Scoter.

Another method of procuring Wildfowl, which is, or at any rate was, extremely popular on the other side of the Channel, is the strategy known as the "Reverbère pour les canards." This form of sport was chiefly practised in Burgundy. Lalaupere assisted in this amusement in Dauphiné on the banks of the Durance, and affirms that he saw *plus de* ducks shot to the artificial light in one evening. It must be explained that a copper pan ("chaudron"), freshly scoured, serves as the 'Reverbère' or reflector. When this sport is to be followed upon the banks of a river the sportsman requires the assistance of a friend, called the "Porte-reverbère"—because he carries the copper vessel tied round his neck. He holds in his hand a small vessel containing oil. He contrives to reflect the flame of the lamp upon the burnished copper, and thence upon the surface of the water. Should he be so fortunate as to fall in with any Ducks, the birds are expected to swim towards the light and quack with surprise. The gunners, who join company with the 'lamp reflector,' shoot at the Ducks as soon as they descrie the outline of the birds swimming in the water. When this sport is carried out on the bank of a marsh or swamp, the fowler can not single-handedly attach his blazing pot to a post, at the same time setting the lamp on the ground in such a position that its light is cast upon the smooth surface of the 'Reverbère.' The Ducks and other aquatic fowl are amazed at the light and swim within shot. The 'Solitaire Inventif' reminds us that many French peasants capture Ducks by means of hooks baited with worms, small fishes, earthworms, or little pieces of meat. Some fowlers attach a number of hooks to one single cord, but our author says that the result is that the first bird hooked alarms all the rest and frightens its companions away. He prefers to explain that each hook and line should be attached to a separate peg, and placed under water in a ditch to which the Ducks resort to feed. It is usual to scatter some grain to attract the birds. It may seem trivial to mention so simple a ruse as taking Wild Ducks with a hook, but the interest of the practice lies in

the wide area over which its actual employment extends. Mr Henderson assures me that the peasants in the west of Ireland frequently catch Wild Ducks by means of a hook. Their custom is to insert such hook in a small potato and leave it floating in a drain. In the east of Cumberland it is a common custom of country lads to endeavor to negotiate the capture of Wild Duck by means of baited hooks placed in shallow brooks in which Ducks are in the habit of feeding. The same plan is occasionally resorted to in Siberia. Mr Tickell tells me that he saw Ducks successfully captured with hook and line on the Kashmir lakes. "A number of willow sticks, each about as long as the depth of the water, have attached to one end a yarded line and a hook; the hooks are baited with a kind of water beetle, and the ends of the sticks are then pushed into the bottom, leaving visible above the surface only the bait and part of the line; the ducks hooked themselves exactly as fish do, by swallowing the bait." Mr Tickell cannot remember which species of Ducks were taken in this way. The commonest Ducks in that region are the Mallard and the Ferganians Duck. Both these species breed in enormous numbers in Kashmir.

The Japanese are expert in catching Ducks with hook and line. The usual procedure is to take a line but strong silk thread five or six feet in length (seven or eight feet of line are occasionally used), to the end of which a hook is attached. The fowler provides himself with some carp about three inches long as bait for his tackle. He betakes himself to some pond or mead which he knows to be frequented by Ducks, and chooses a favorable spot in which to cast his hook and line. When this point has been decided, he ties the free end of the silk cord to the roots of a bush or tree by the waterside. Alternatively, he attaches his line to a large stone. The little fishes that upon the surface of the water, are greedily swallowed by the Ducks, which find escape barred by the hooks which they have unwittingly belied. The Blue-winged Teal (*Querquedula discors*) was formerly trapped by American fowlers in an ingenious fashion. Wilson states that in his day this Teal abounded at certain seasons in the inundated rice-fields of the Southern States. Consequently, many of these birds were procured in traps set upon the small dry eminences which rose here and there above the water. The precise form which the trap assumed is not described. It appears to have consisted of a small pit in the ground, which was covered by a

weighted board. A figure of four was so contrived that when a hungry Teal entered a trap to get mandarin upon the rice strewn inside, its weight dislodged the supporting prop and closed the exit.

Audubon alludes to the Wood Duck being captured in a similar way. "I know," he writes, "a person now residing in South Carolina, who has caught several hundreds in the course of a week, bringing them home in bags across his horse's saddle, and afterwards feeding them in coops on Indian corn. In that state they are bought in the markets for thirty or forty cents the pair. At Boston where I found them rather abundant during winter, they bring nearly double that price—but in Ohio or Kentucky twenty-five cents are considered an equivalent" (*Orn. Biogr.*, Vol. III. p. 58).

Old English writers often suggest the use of drugs as a means of obtaining Wildfowl. Thus we read in *A Jewell for Gentlemen* of "An excellent way to make a laute to catch wilde Geese, and wilde Duckes, and all other sorts of Fowle.—Take the seede of Helenge, and the roots also, and steepe them in water the space of a day and a night—then seeth the said seedes and roots in the water that they were steeped in, so that the seedes may well drinke and soke up the water, then lay the said seedes or graine in the places where wilde Duckes, and wilde Geese are wont to resort, and they will eate this graine or seede so prepared, and thereupon will sleepe as they were drunke, and in the mean time you may take them with your hands—but there must be a pretty quantitie of this, especially for wilde Geese. This may also serve to take all other manner of Fowle that go together in sholes or companies. If you seeth this graine in Brimstone and lay it in the places where Birdes and Fowles are wont to feede, and all that eate of it will fall downe and die—but to keepe them that they die not, you must give them to drinke Oyle Olive, and shortly after they will revive againe."

Mr. Syam writes to me that a rumour was at one time spread in Shanghai that the Duck and Teal supplied to the local market had been poisoned:—"The wily heathen soon rose to the occasion, and hanging the birds up in bunches, discharged a barrel or two at them, which settled all doubt as to their manner of death. I have heard it said that grain steeped in 'samshu'—native spirit—is sometimes spread on the feeding grounds and the birds becoming intoxicated are picked up by hand, but I have not been able to verify this."

Mr R. A. Currie informs me that "Wild Ducks are, or were till recently, frequently to be seen in the Shanghai market, in a paralysed state, produced by poisoning with *Nec. vomica*, and were freely bought and eaten without ill effects to the consumers. The ducks were paralysed, not dead, as could easily be seen by their eyes. *Nec. vomica* beans were scattered on the mud flats on which the wild ducks came to feed, and next day the paralysed ducks were picked up. My authority for saying that the poison used was *Nec. vomica* is Mr A. Michon, formerly of the *Chinese States*, Tientsin,—a naturalist and a gentleman of the widest information, who first drew my attention to this subject."

I am not aware that the Japanese drag Wildfowl, but they certainly capture great quantities of them by means of birdlime. The method

known as "Taka-nawa" is employed in rice fields and other favourite haunts of fowl. The fowlers first take a quantity of birdlime ("Mochi") and mix it with seed-oil. The lime is then boiled to make it soft. It is next smeared over a fine but strong hemp thread, which is wound on to a reel or frame. The fowlers repair with their birdlime to the spot selected for their fowling operations. They provide themselves with two dozen or more female bamboos, six feet in length, which are sharpened at one end. These bamboos are duly staked across the side of a pond, marsh, or paddy-field, at a distance of five or six feet apart. The



ILLUSTRATION BY JAP. LINED THREADING.

tops of the bamboos are greased with seed-oil, so that they allow an easy play to the limed thread, which is wound off the reel and stretched in a line along the tops of the bamboos. The limed thread is allowed to hang

in festoons between its supports. When flight-time comes the Ducks and Teal arrive upon their usual feeding ground. As they circle over the water many of them come into contact with the loose threads, and drop to the ground entangled by the sticky strands. The position in which the lines are set depends upon the wind. The native fowlers wear a kind of patten, by means of which they are able to traverse the surface of thin mud in safety.

But the Japanese do not content themselves with catching Wild Ducks with limed threads stretched in mid air. If the fowlers possess a boat which is lying on a river or lake, they prepare to take the Wild



Limed Wild Ducks in Japan.

Ducks when they fly in from the sea to feed in the fresh water. A long string is therefore woven of tender reeds. This is smeared with birdlime and coiled upon a frame or reel. The fowlers then embark in

their fishing-bout and proceed to pay the line out until it reaches across the lake or river. The reel, upon which the "Nagashimochi" or "floating birdline" is wound is held in the left hand, while the fowler slowly unfolds the line with the forefinger of the right hand. The men calculate that the Wildfowl are sure to swim against the wind, and that the reel line will be drifted by the wind upon the birds. Either it will adhere to the breasts of the Ducks or the birds will try to throw the line over their heads with their mandibles, the result being the same in both cases. Some fowlers use the stem of a species of creeping plant as a substitute for reeds in manufacturing the water-line for Ducks. The branches are stripped of their leaves and are then joined together in one long chain. The fowler then passes his line through a hole in a wooden ball which has been filled with birdlime. The creeper-line is then smeared with "Mochi," and is wound off on a reel, to be used in the same way as the reel-line. It seems surprising that birdlime should be sufficiently tenacious to hinder Wild Ducks from flying away. Yet Gerrase Markham dwells with obvious satisfaction upon the old English custom of capturing "Fowles" both great and small with lined strings and twigs. As to the former, the Notts fowler advises that the sportsman should supply himself with "strings or lines made of small round knotted here and there, and containing in length many fathoms." These strings are to be covered with the strongest birdlime that can be procured. The birdcatcher is directed to have "a whole burthen of little stakes, about two feet long at the most, sharp at the nether end and with a little foke at the upper end, he shall prick them in even rows all over the ground or place of haunt, one row distant from another a yard or two, and one stick siding another, within foure or five yardes as they may conveniently bear up the strings, and they shall be pricked a little shewing or slantwise: so as they may be within a foot and a halfe of the ground at the uttermost, then shall these lined strings be drawne and layd upon the fokes some rows higher then other some, like a balke of water, higher in one place then another, till every row be filled, and the haunt covered all over, then you shall fasten the ends with a slipping rope, in such wise that upon any violent straine the whole string may loosen and lap about any thing which toucheth it, and in this wise you shall take a great number of Fowles together, according to the flocks and herds in which they fly." Markham also

explains how a lined string can be stretched across a river, supported upon forked twigs which have been planted in the water. He likewise instructs the countryman how to set lined twigs to catch Ducks, both in the water and on the river bank. "Now for the placing of these Rods, as you did prick them on the dry land, so you shall park them in the Water, as much of the Rod as is lined being above the water, and amongst your Rods you shal stake downe here and there a live-Stake, being either a Mallard, or a Widgeon, or a Tayle, and thus you may doe all over either any shallow plash, fenn, or any other blank waters which is unkenble." The Japanese peasant of the present day is adept at capturing Wild Ducks with lined pieces of bamboo ("Higo-mochi.") The fowler goes to a paddy-field or small pond, carrying a bundle of from forty to fifty pieces of slender bamboo. These measure about two feet in length, and are well coated with birdlime. The stakes are set in the ground wherever a Duck is likely to alight. The ill-fated Ducks which feed in the spot during the night strike against the treacherous canes and become incarcerated for flight. It is usual to darken the "Higo-mochi" with a little Indian ink.

[The headpiece is reproduced from Mr H. T. Wade's work on *Sport in the Yangtze Valley*. The original block was specially drawn by a Chinese artist.]





CHAPTER XXXII.—PIGEON-TRAPPING IN THE OLD AND NEW WORLDS.

ALTHOUGH pigeons usually lack the prime qualities of game-birds, they are eagerly sought after in many countries. The European Rock Dove (*Columba Javan*) exhibits so much wariness that the adults are seldom deprived of their liberty. The squab young are occasionally taken from the dark niches of the gloomy, spray-dashed caverns of the Hebrides to be brought up in semi-captivity. In some parts of India the resident form of Rock Dove (*Columba schisquai*) is much persecuted by fowlers.

Mr Lathesdale of Baroda informs me that in his district the "Blue Rocks" abound in the deep village wells. The capture of these birds is accomplished by the simple device of spreading nets over the wells after

suspect. The pious Hindu of high caste much objects to the capture of pigeons, but the native fowler generally carries out his operations when the pious Hindu is asleep or at his dinner.

The pigeon which affords the best sport in Western Europe is the Ring Dove (*Columba palumbus*). This bird has other associations than those of "La Colombe," for was it not the favourite of Venus—the bird that the peasant of the Apennines delighted to carry off from its tiny nest that he might bear it as an offering to some dark-eyed shepherdess? But the popularity of the Ring Dove in our own times is due to its excellent edible qualities. Hence from Palestine to the Pyrenees the Wood Pigeon is eagerly sought after.

Cannon Tristram tells us that countless numbers of Wood Pigeons frequent the forests of Mount Gilboa in winter. Many of these birds fall a prey to the Arabs, who take both the parent species and Turtle Doves in ground-snare made of horsehair. The Arabs make use of their snared birds as decoys. "A wild bird is snared and its eyelids sewn together; it is then tied to a perch which is then set among the trees. The poor captive keeps flapping its wings and uttering its call note. The birds of its kind soon assemble in flocks, attracted by curiosity, and fall an easy prey to the fowlers who are concealed under brushwood close by" (*Natural History of the Bible*, p. 164).

It may be inferred from the passage just quoted that the Arabs shoot Wood Pigeons to the decoy; such, certainly, has been the custom in Italy for the last three centuries. The Italian sportsman selects a tall and isolated oak in some spot through which the birds are expected to pass. He next builds a small hut at the foot of the tree, a little distance out from the trunk, and sufficiently large to hold two or three persons. A decoy-pigeon is fastened upon a play-rod, termed the "labetta," which is firmly secured to the top of the tree. The fowler works the "labetta" by means of a long string. When he pulls the play-rod up and down, the pigeon fears that it may slip from the perch; consequently it opens its wings. This action encourages any passing pigeons to join company to the captive. The decoy is termed a "Zimbella." Di Valli suggests that young birds should be taken from the nest and trained as decoys.

Saxi assures us that great preparations for shooting Wood Pigeons are made in the woods of Montepalciano and Pitigliana in the State of Rome. A hut capacious enough to hold two or three men is constructed

of branches in the top of a tall tree. It is screened from observation by the foliage, and provided with two or three windows, besides various perches through which the gunners can shoot at the wild pigeons. An adequate time before the sport is expected to commence, ten or twelve pigeons, called "Columbini" because they are of the same colour as the "Columbina" or Wood Pigeon, young birds that do not know their own colour, are carried up into the hut and caged in this veritable "Chow" net. These young pigeons are at the outset, say for the first fortnight, confined in the hut. After this preliminary period of detention, the birds are released and accustomed to receive their food at the window of the hut. They fly about the neighbourhood, returning to the hut to be fed. When the passage of wild pigeons commences, these decoys stand the fowler in good stead, since they induce great troops of Wood Pigeons to perch within gunshot of the hut. This sport is the "Volantini," that term being applied to the decoys trained in the tree.

Another Italian method of catching Wood Pigeons figured by both De Valli and Olina, is to fix a decoy on the top of a tree which is covered with limed twigs. The Italians also take Wood Pigeons by setting Clap-nets in places to which the birds resort in search of acorns. This method is principally adopted when the ground is covered with snow. In Germany the Clap-nets are, or were, generally set for Wood Pigeons at salt-licks (Salzlecken). Both this bird and the Stock Dove (*Columba oena*) are very partial to salt, and will sit still on the salt-lick while the fowler pulls his nets together. The Russians are well aware of the predilection of the Wood Pigeon for salt, and take the bird in specially prepared sittings. We learn from Selivanowski's *Sportman's Book for Capturing Animals and Birds*, that the salting for Wood Pigeons is accomplished in the following way. The fowler takes a few seeds of cucumber, onion, sunflower, and other seeds and roots and mixes them with some finely powdered clay taken from an old stove. He proceeds to knead this compound together, with the addition of some herring brine. In the absence of herring brine, water containing salt may be used instead. Hemp seed and lentils may be added to the compound, which is placed in a wooden box, about three feet square the clay being highest in the centre of the box. The box is then buried in the earth to a level with the surface of the surrounding ground, and becomes the centre of a fowling-den. Care is needed to keep cattle away from this

salting, for if they gain access to the salting they devour the mixture. It is a good plan to make the salting in the neighbourhood of some stream at which the Wood Pigeons are accustomed to drink. The nets used are very large, measuring seven fathoms in length, and are worked in the usual way from a small hut. An inducement for the wild birds to alight on the salting is provided by the presence of a couple of tame Wood Pigeons which have been taken from the nest and reared up as decoys. These decoys are fastened to play-sticks, upon which they are worked by means of lines held by the hunter, in the same way as any small birds. The best month for catching these birds in Russia is August, for they gather into flocks for migration in that month and are also very fat. It does not appear that Wood Pigeons were ever extensively netted in Great Britain. Our forefathers caught them in considerable numbers by setting lined tugs on the ground around live or dead decoys. The old-fashioned ruse of driving an extemporised skewer into the breast of a Wood Pigeon, and setting it up as a decoy in a field of newly-sown barley, will at any time afford a modern gamester a medium of amusement. I have known a Perthshire farmer shoot from thirty to forty 'Cashie Doo's' in the course of a single forenoon by adopting this simple expedient. Markham says that Wood Pigeons can be taken at night with the bat-folding net. Geden entertains us with a description of night-fowling for Wood Pigeons in France, which he styles "Chavari." This sport is carried out by a party of men on a dark night. Some of the party carry lighted wisps of straw, so that they may see well. Others carry pans and metal basins, or are armed with cross-bows. When the peasants arrive at the spot where the birds are roosting, those who carry the noisen instruments beat them and make such a din as to completely stupefy the drowsy birds. These continue to perch on the branches and afford an easy target to the sportsmen who handle the bow. But this is child's play compared with the serious operations carried out by French mountaineers in "la chasse aux filets des ramiers et des bisets." This is a local method of fowling, though identical in principle with an Italian method which will be described presently. The system carried out in the neighbourhood of the Pyrenees is intended to intercept parties of Wood Pigeons whilst migrating from the plains of France into the forests of Spain and Portugal. In former days this sport was honoured by the presence of ladies of the highest rank. A single

instance of this may be given here. In the year 1578, the Vicomte de Fumee, "ayant voulu rendre visite à Catherine de Médicis en la ville d'Amboise, ne put voir la Reine-Mère." Her Majesty had gone to "une tente de palombes!" I have never had the good fortune to visit the Pyrenees in the autumn, but several French and English writers have described the details of the "Palombières" or fowling-stations. Mr R. C. Weld has given a capital account of a Palombière in the vicinity of Rognes (*The Pyrenees, West and East*, pp. 229-230). The "Chasse" visited by this gentleman was situated on the ridge of a hill, about two miles from Rognes, between some tall trees. The spaces between these trees were occupied by nets extending from within a few feet of their tops to three feet of the ground. About one hundred yards in front of the nets, and on the side from which the Wood Pigeons were expected to arrive, stood the structure known locally as a "Trépod," consisting of poles spliced together so as to form two mast-like erections about 150 feet high. "One mast is nearly vertical, the other slightly curved, the thick ends are embedded in the ground about five feet from each other, and the smaller ends meet at the top, and sustain a kind of 'crow's nest,' consisting of a basket sufficiently large to contain a man. Access to the 'crow's nest' is gained by means of pegs inserted in the curved mast at intervals of two feet, and up these a lad goes with as much easiness as if he were ascending an ordinary ladder. All persons except the 'crow's nest'-man conceal themselves carefully behind leafy screens; and from early dawn to dusk a keen look-out is kept for the expected visitors. When a flock of 'Rammers' is seen on the horizon, the watcher gives notice, and when the pigeons heading the flock are within about a hundred yards of him, he throws the piece of wood at them. The result is that the flock stop, and forfeit their lives in their endeavour to pass between the trees. For the nets are so cunningly set, that, when the pigeons strike against them, they fall, being liberated by the pulling of a trigger, and enclose the poor birds within the meshes. Death rapidly follows, the work of destruction being performed by old women who mercilessly kill the pigeons by biting their necks." The "Palombière" just described belonged to the Commune of Géna. At the time of Mr Weld's visit it was rented by eight parties, each of which had a separate "Chasse." In 1858 their rents varied from one thousand to two thousand francs per annum. The Wood Pigeons realised from five to ten sous a-piece.

The *Fidél* of the year 1885 contains an account of another "Palombière" in the Commune of Sare, situated on a ridge of a spur of the Pyrenees running east and west, and about two thousand feet above the level of the sea. "The ridge," says this writer, "is more or less level for some two hundred and fifty yards, which space has been cleared of all wood with the exception of six huge oaks standing in line. At the height of about 40 feet in each oak was fixed a spar, from which depended a rope, with the lower end pegged to the ground and carrying a wooden travelling ring weighted with iron. Each spar had a block and halyards, the standing part of the latter being fast to the wooden ring. The nets, $1\frac{3}{4}$ in. mesh and about fifty feet broad, have their upper corners hooked on to two of the wooden rings, and are thus hoisted into position; the lower ends are drawn backwards, i.e. southwards, for about thirty feet and pegged down; the two halyards of each net are hooked to a single trigger, and all is then ready." Some small huts covered with broken are used in this locality for hiding-places. The pigeons are first sighted by the flag-boys, who, by waving their flags, confine the birds to the valley, and force them in the direction of the nets. When the birds approach, the chief of the fowlers gives a shrill whistle to warn his party to get into hiding. When the birds are near he utters a roar and throws out a wooden disc from the tree in which he is stationed; the birds take this for a Hawk, and, stooping to avoid it, rush into the nets, which fall with a simultaneous rush, the pigeons fluttering on the ground underneath. The net-men seize the birds, and plucking out the feathers of one wing, put them into the front pocket of the apron which they wear, from which the pigeons are eventually transferred to a receptacle formed of boughs built round the trunk of a tree. One of the hunters of this "Palombière" stated that the right to net Wood Pigeons on the spot referred to is rented by twelve partners from the Commune of Sare. The passage of the "Ramiers" is supposed to last from Michaelmas until Martinmas Day. No fewer than a hundred and twenty-four birds have been taken in a single net at one flight. Magné de Marolles states that one hundred is as many as are normally taken in a "Palombière" at one time, and even this is a considerably larger number than should be looked for. A few "Bisets" or Stock Doves are taken with the Wood Pigeons in the "Palombière."

Tonara states that large numbers of Stock Doves were taken in his

time on the coast of the Romagna by a somewhat similar arrangement of a net. The Italians suspended a large-meshed net between two tall trees. The engine was secured with cords and pulleys in such a way that the net could be dropped in a moment by two men who leant against the base of the trees. Three other men were stationed at intervals between the net and the sea, provided with slings and stones. The stones were of an oval shape, properly smoothed, and grey in colour. When a flock of Stock Doves happened to pass, the men cast the stones from their slings in succession after the flock. The birds, imagining that they were pursued by a hawk, diverted their intended course and darted into the net. This plan was practised in the woods of Antium in the time of Plinius (as quoted by Aldrovandus), in the autumn when the birds lingered on the Italian shores before crossing the sea to their winter quarters in the north of Africa. Nor was this method in vogue only in the neighbourhood of the Romagna. The fowlers of other districts practised the same system, with variation, according to local circumstances.

The late Mr Walter Campbell tells us, in his *Life in Normandy*, that on two different occasions he saw large numbers of the Turtle Dove (*Pouter caucasia*) netted in Italy. On the first occasion the scene of operations was a large wood near Florence. A net was hung across a road in the wood, which ran nearly north and south. "Crows' nests" were erected in two high trees near the road, and these were occupied by boys, who were furnished with artificial decoys in the shape of stuffed doves mounted with outspread wings, and weighted in the head. A string about a yard in length was attached to each dummy. Whenever a flock of Turtle Doves appeared in the distance, the first boy whirled the dummy round his head and cast it towards the net. The string acted like a sling, enabling the boy to throw the lure to a great distance, the weight in the head making it fly straight forward like a shuttlecock. If the decoy was seen by a flock of doves, they were sure to turn towards it; if they did not turn, it was because the first cast had not been seen, and then the same boy threw a second or third time, until the flock came towards him. The second boy always remained still until the flock of Turtle Doves was close at hand, when he threw a decoy straight towards the net. The secret of success lay in the fowler judging the proper moment to cast his decoy, in throwing it in the right direction, and in

accomplishing his work without being seen himself, for, when the strategy was cleverly executed, the whole flock was sure to go headlong into the net. The second situation in which Mr Campbell witnessed the capture of Turtle Doves was a narrow valley to the south of Naples. The net was suspended between two rocks. The lures were thrown by several boys and men, who concealed themselves in small huts built of turf. Upwards of a hundred doves were taken at once in the net.

Dr Valli affirms that in his day the Turtle Dove was taken both on the spring migration in the month of April, and also in August, when these doves frequent the stubble fields, by means of Clap-nets. Savignoli equates that many are taken in Tuscany at the two seasons of migration with Clap-nets. In July and August, when water is scarce, many are shot, netted, and taken with lined twigs at their watering-places. Olina remarks that doves are taken in househair snares, like Thrushes, and with lined twigs set around a decoy on the top of an oak. Decoy-birds of this species are, of course, required for effecting their capture with the Clap-nets. Mr W. C. Tait, of Oporto, informs me that it is by means of Clap-nets and decoy-doves that the Portuguese capture large numbers of Turtle Doves on their autumnal migration to Africa. A good many Turtle Doves are taken in the Quail nets in spring on the island of Capri. It is through the instrumentality of Clap-nets that large numbers of doves are obtained upon the island of Malta.

Mr C. A. Wright states (*Ibid.*, 1864, pp. 137-138) that this Turtle Dove passes Malta in large flocks 'in April and May, when great numbers are caught in platform-nets. Hooded decoy-birds, which are sometimes kept for six or eight years, are used to entice the wild ones into the nets. This sport is a favourite amusement with the country gentry; and in most of the 'Casals' or villages the village priest, whose occupation and duties afford him an abundance of idle time, pursues it with great assiduity. The manner in which the doves are taken is the following: A spot is chosen, generally on the summit of a hill over which it is ascertained from experience the birds are accustomed to pass. This spot is laid out with flat stones over an area of (say) 24 feet by 8 or 9, so that the nets, in turning over, may be flat. The nets are laid, and fastened to the ground, one on each side of this platform. Two hooded birds are placed at one end in a depression, in order that they may be perfectly free of the nets when they are pulled over them. They are fastened by the leg

to a piece of wood, moving on a hinge, so that by pulling a string the bird can be gently raised in the air and exposed to the view of passing flocks. It is generally the custom to post two or three birds, hooded and secured in like manner, as outsiders, on raised heaps of stones, to render them more conspicuous objects of attraction. When the doves are seen approaching in the distance, one or more of these trained decoys are first raised and let down, and afterwards the others. Twenty and thirty doves and upwards are frequently caught in this way at one haul."

Much interest attaches to the capture of vast numbers of Turtle Doves at the present time in Greece, notably upon the island of Zante. My warmest thanks are due to Mr A. L. Crowe, the British Vice-Consul of Zante, for the pains which he has taken to procure information on the methods of fowling still extant in Greece. Mr Crowe has a personal knowledge of the device by which the peasants of Zante capture the Turtle Doves in the month of April. The birds are then making their



SEARCHING TURTLE DOVES IN ZANTE.

passage from the coast of Barbary to the cornfields of Bessarabia and Southern Russia. Along the ridges of the southern portion of the island, where there are trees (mostly fir or pine), the peasants carefully strip the lower branches and fix upon the bare stems certain frames, composed of tough boughs to which a series of horsehair nooses (of which Mr Crowe has thoughtfully sent me a specimen) are secured. From four to six snares are attached to a single frame. Several frames may be placed upon a single branch, according to its length. When the doves alight

on these branches, wearied with their long flight across the sea, they generally get caught in the snags by the feet or wing, and are therefore taken alive. Such birds as happen to get their necks into the nooses are often strangled before the fowler arrives to extricate them. This business is carried out systematically by the peasants who live in the villages in the south of the island. Every man has his own trees, which no one else may make use of, and shooting in the neighbourhood is strictly prohibited. Contracts for forward delivery are made with poulterers in the town, who advance money thereon. Thousands of Turtle Doves are brought in. The living birds fetch from sixty to eighty leptas, *i.e.*, fivepence or sixpence a-piece, and the dead birds fetch about half-price. Zante is the only place in Greece in which these doves are caught in great quantities. The live birds are therefore in great demand, being bought up eagerly, and distributed all over the country. The Turtle Dove is thin and tough when caught in spring, but soon becomes plump and well flavoured if fattened on wheat or maize.

The Japanese fowlers capture large numbers of Turtle Doves (*Factor orientalis*) and other pigeons by means of the *Muso-net*. The net intended to be used for taking pigeons is made of hempen thread. The wild birds are allured to the toils of the fowler by a captive example of their own kind. This bird is mounted upon a play-rod, to which a line is attached. This arrangement enables the birdcatcher to seize the right opportunity of enticing the free birds to alight, by jerking the perch of the tame bird. This action induces the decoy to flutter its wings to retain its perch. It serves, however, to disarm the fears of the strangers, which are thus emboldened to venture within the area covered by the net.

Professor Ijima has also procured for me a Japanese Dove-call. This consists of a hollow piece of bamboo, which measures rather less than two inches in diameter. The total length of this call is five inches and a-half, but the tubular portion measures only three inches and a-half. The remainder is continued as two parallel shafts of wood, which are united with two inserted splints of wood to form a mouthpiece. The fowler imitates the cooing of a dove by coaxing the open end of the bamboo cylinder with his hand, while he blows softly through the mouth-piece. The sound thus produced escapes through a hole below the mouth-piece. Professor Ijima renders the sound of calling doves as, "*Set-pu-pu, Set-pu-pu.*"

The Romans who lived in the Augustan age were at pains to fatten Turtle Doves for their luxurious tables. Such eminent authorities on



JAPANESE MYIO-VIREO.

rural affairs as Varro and Columella agree in advising that the captive doves should be carefully tended, and provided with millet and wheat as well as plenty of fresh water. Palladius (*De Re Rustica*, Lib. 1. Cap. xav) adds the additional information that the wheat or millet intended for Turtle Doves should be moistened with honey ("triticeum vel milium munda maceratum"). Tinnius advises that Turtle Doves should be fattened in a similar chamber to that used for *Otolomas*, except that the Turtle Doves must not be permitted to fly about "in pregiudicio dell'ingrassamento." Another species of Turtle Dove (*Turtur malacensis*)

is common in the island of Niuean, and is known to the crôles as the "Tourterelle du pays." The native fowlers effect its capture by placing



JAPANESE DOVE-CALL.

lined twigs in the places where doves are likely to roost. The Tooth-billed Pigeon (*Didunculus strigirostris*), a native of the Samoan Islands, is also captured by means of birdlime. But many devices are used in the East for catching different species of pigeons. Thus, in Northern Borneo, the Green-winged Dove (*Chalcophaps indica*), which is common in the S.E. monsoon, is caught in hundreds by the natives. The flesh of these birds is very sweet and much sought after by the natives. Mr. Whitehead states that the fowler builds a small covered place on the ground, around which he sows some grain, after which he proceeds to attract the birds with a peculiar bird-call (Ibid, 1890, p. 136). The mechanism of the bird-call in question has been fully elucidated by Mr. Rumbidge, who sent the following account of its structure to Dr. Selater:—"Herewith I send you sketches and a short account of the call-



DOVE-CALL USED IN BORNEO.

wigwams' used by the Kady-lans (a pastoral race who live in N.W. Borneo) in order to capture the small green 'Puni' Pigeon. The call is formed of two pieces of bamboo, (a) a slender tube, (b) a short piece 3 in. to 4 in. in diameter, and a connecting piece of wood (c). At (b) is a hole similar to the embouchure of a flute, and the lower end of the blow-tube (a) is

fitted to this, in such a way that, on blowing at (x), a soft, low, flute-like 'cooing' is easily producible, and this can be readily modulated so as to be heard either at a long distance or near at hand. The native who has taken up his position in the forest or jungle where these little birds are found blows very softly at first, but if there be no answering call from the birds he blows louder and louder, thus increasing the radius of sound. If there really be any pigeons of this kind within hearing, they are sure to answer, and then the hunter blows softer and softer until they are enticed into the 'wigwam' of leafy branches which he has erected in order to conceal himself from sight. The door or entrance to these 'wigwams' is partially closed by a screen of palm (*Nypa fruticans*) leaves. This is elevated a little to allow the Pigeons to enter, after which it is allowed to fall, portulaca-like, entirely, so as to close the entrance, and the bird is then easily secured. Above the entrance two holes are made, so that the hunter can look out without being seen. These huts are formed of a few poles or sticks, rudely thatched with twigs and palm-leaves, and vary from four to six feet in height" (P. Z. S., 1879, pp. 346-347).

Mr Whitehead differs from Mr Harbidge in one particular, the doves being secured, according to the former gentleman, by being noosed. We Europeans should prefer the nets of a "Palambane," as affording more exciting sport than that of sitting still for hours in the hope of being able to drop a snare at the end of a long rod over the head of a pigeon; but the latter method seems to suit the natural incline of the Asiatic. Mr Charles Hose informs me that the pigeons of Borneo (with the exception of the Green-winged Dove) are usually caught in snares which are fixed up in the branches of the trees which these birds frequent. It is by means of treesnares that the capture of the Bronze Fruit-Pigeon (*Carpophaga nana*) is effected, as also that of *Carpophaga hutchinsoni*, *Trogon natterii*, *Trogon castaneus*, *Fulica tigrina*, and other Malayan pigeons. Professor Veth states that the natives of Sumatra are clever at trapping wild birds, including the Bronze Fruit-Pigeon and another species which he calls by the native name of "Ralam." This last Dr Forbes believes to be identical with *Trogon castaneus*. The species known in Sumatra as "Ralam" is sometimes caught with lime, but Veth figures a snare (here reproduced) as the chief method of capturing individuals of this small pigeon. The decoy-pigeon is tethered to a stake which is securely fastened to the

ground, and the snare thirty-five in number, are arranged in a circle around, so that the wild birds cannot reach their captive mate without crossing the fatal circle of nooses.

During the prevalence of westerly winds the fruit-bearing trees of the Pelew Islands are covered with fruit, and the natives repair to the



SNARE TRAP FOR BIRDS.

interior of their islands to hunt doves. Like the Samoans, they call the sport "moumet" when they use tame doves as decoys. The birds are also shot with bow and arrow. For the latter purpose the fowler, according to Eulary, tethers a live dove, by a string attached to its leg, to a branch of the tree which the wild pigeons frequent; when the wild birds come within shot of his hut, which is covered with branches, he shoots them with his bow and arrow. The doves are taken likewise in snares, which are fixed on to the branches, close to the growing fruit.



A TREE SNARE.

Mr Harry Hadfield informs me that many pigeons and doves are caught for food by the inhabitants of the Loyalty Isles. Some of these birds are snared with nooses affixed to the branches of trees. The Fruit-pigeons, which live upon the ground, are obtained by means of a kind of spring. The illustration is drawn from a model of this trap which Mr Hadfield kindly made in my presence. The long switch is retained in the proper

bent position by means of a short piece of wood, which is pressed against the crossbar. This last rests against the sides of the bent switch. The little platform of twigs covers a hole in the ground,

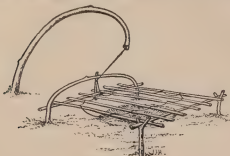


FIGURE 100. PIGEON-TRAP.

which has been filled with grain. A few grains are strewn around, to attract the attention of any pigeon that may be in the vicinity. When the bird alights on the platform its weight releases the switch, which flies backwards, carrying with it the pigeon, which is now fast in the running snare attached to the extremity of the switch.

The New Zealand Pigeon (*Carpophaga nova Zeelandia*) is not only one of the largest and most beautiful of the fruit-eating pigeons, but is also a good sporting bird. In times past this species has supplied an important addition to the diet of the Maoris, *et c.*, at the season of the year when these birds assemble in large flocks to feed upon their favourite fruit. I am under great obligation to Mr W. W. Smith of Ashburton for the pains which he has taken to obtain for me accurate information regarding the fowling methods of the Maoris. One of the most valuable contributions to the subject is to be found in a paper by Tamati Ranapiri. This has been translated by Mr S. Percy Smith, and published in the *Journal of the Polynesian Society* under the title of "Ancient

Methods of Bird-snaring among the Maoris." The native names of this pigeon are "Kerera" and "Kukupa." It is a handsome bird: the head, neck, and forepart of the breast are shining gold-green, while the nape, shoulders, and upper surface of the wings (as far as the carpal joint) are coppery purple with bright metallic reflections; the back and rump are greyish-green, with dull metallic reflections; the breast and underparts are white. We are accustomed to regard our English King Dove as a fairly large pigeon, but it only measures seventeen inches in length, while the New Zealander measures twenty-one inches. The latter retires to the high-wooded lands of the interior to breed, and therefore is little harassed in the breeding season. It is strictly arboreal in its habits, and prefers the densest foliage. The Maoris take large numbers of this pigeon by means of snares, and many are killed likewise by spearing. So important has the latter method proved to the Maori race in past years that a Maori proverb, intended to inculcate the wisdom of providing for what may be wanted upon a journey, says:—"Don't forget pre-venter; there will be no 'Tarnings Here' (bird-spearing) on the way." The "Tabere" or "Here" is a long piece of wood, carefully prepared. The Maoris have, or had, two kinds of spears. One of these was used in warfare as a defensive instrument. It was adapted for being thrust through the palisade of a fort against the legs or bodies of the attacking party. But the bird-spear was always much lighter, and made of the wood of the Tawa tree (*Mossopanax tawa*). The Rev. W. Colenso tells us in his "Reminiscences of the Ancient Maoris" (*Trans. N. Z. Inst.*, Vol. XXIV.) that he never could understand how the pigeon-spears of the Maoris were manufactured until he visited a tribe of Maoris at Rautahuna, from whom he learnt the secret of the construction of these spears.

When the Maoris had determined to make a pigeon-spear, they selected a straight, tall, and sound Tawa tree standing in the forest. The next step was to fell the tree with their stone axes. The top and branches of the felled tree were carefully cut off. The trunk was then dragged into the open and split down the middle into two equal halves. If the stem split easily and straight then it would probably serve for two spears. The Maoris next prepared a raised bed of clay, from thirty-five to forty feet long, i.e., longer than the proposed spear, beaten and trampled down so that the surface was quite smooth and regular. One half of the split trunk was dragged on to this clay bed, and carefully

adzed down, by degrees and at various times, to the size and thickness desired for the spear. The spear was not continuously worked at, but it was continually being turned and fixed by pegs in the ground to prevent the wood warping and becoming crooked. It took a considerable time—about two years—to hush a spear. The last operation was that of scraping the weapon with a broken shell or fragment of obsidian, and rubbing it smooth with pumice-stone. When the spear is complete, it has been adzed down to the thickness of one inch and a quarter in the middle, tapering off to three-quarters of an inch near the ends, and then fitted with a "*tau-kamihia*," or barb. The barb is made of bone, one end of which is sharpened by scraping, and one side is serrated ("Kamihia"), in order that it may hold the bird when driven home. When the barb is finished, it is bound on to one end of the spear, and is then fit for the use of the fowler.

I have been careful to summarise here the details of spearing, as given by three different writers, in order to explain what an immense amount of trouble the Maoris expend upon the manufacture of their bird-spears. The kernel of the matter lies in the Maori proverb, "You cannot brew a bird-spear by the way," or, in other words, "without timely preparation you may die from want of food, though the pigeons are plentiful in the forests near you."

Major Hepthy, V.C., gives the following description of spearing pigeons: "On another occasion I accompanied a party of natives into the hills near Richmond, to spear pigeons. The spears are about twelve feet long [this is much shorter than usual] and very slender, not more than $\frac{1}{2}$ in. in diameter at the thickest part. They have to be held near the point, and, on a journey, trailed behind until wanted for immediate use. The pigeons are probably feeding in low trees, or are about water holes, and are scarcely frightened at the approach of the hunter, who quietly steals under them, sometimes even ascending the lower branches of the tree the bird occupies. The spear is then quietly directed among the foliage towards the breast of the bird, which takes little notice of the operation. When the point is within half a yard, a sudden thrust is made and the bird is transixed. The point of the weapon is of bone, and barbed. This bone is hung securely by a lanyard at its base to the spear-head, but when ready for use is lashed with thin thread alongside the wood. The wounded bird flutters with such force as would break

the spear were the whole rigid; but, as arranged, the thread breaks, and the bird on the barbed bone falls the length of the lanyard, where its strugglings do not affect the spear, and it is easily taken by the fowler's left hand. This mode of capturing birds very soon after our arrival went out of vogue. The spears were exceedingly difficult to make, and the few that were finished were eagerly bought by the whites as curiosities."

At the time when the fruits of the forest are ripe, such as the "Whauke" or "Ti" (*Chordeles australis*), large numbers of these pigeons may be seen flying about and eating the ripe fruit. When they take flight they resemble a swarm of bees, flying round and above the trees occasionally alighting. This is their constant habit so long as that fruit lasts. Sometimes the fowler builds a hut in a tree, and remains aloft until the pigeons arrive to feed, when, of course, he spears all that come within range of his long weapon, generally striking the birds so deftly that the weapon does not remain in the body of the bird, but is withdrawn after inflicting a mortal wound, while the bird drops dead or dying to the earth. The sport of spearing the pigeons is most remunerative in years when the birds are very numerous.

Mr Coleman states that a long spear is sometimes fixed loosely to the trunk of a tall tree which has been trimmed of its smaller branches in such a way as to run easily through a series of small round hoops which are attached to the tree at regular distances. By this contrivance a Maori is able to stand at the foot of the tree and direct his spear into the body of any pigeon that may happen to perch within reach. But the most profitable method of fowling for these pigeons is to adopt the use of snares. There are two methods of employing the snares. The "Tutu" system is that of snaring the pigeons in the trees. The name "Tutu" is applied to an erect, growing tree, in the branches of which a stage is formed, on which sits the fowler who is engaged in snaring pigeons. As soon as the birds begin to fly about the ripe fruit in dense swarms, "all the men of each 'Hapu,' says Tamati Ranapiri, 'possessed of pluck, strength, and knowledge, who live in the neighbourhood, that is to say the native people of the place, decide to make 'Tutus' to catch the 'Kereu.' They search out a tree which has a suitable top, with inwardly inclined branches, and where the surrounding trees have projecting branches. When one is found it is prepared for a 'Tutu.' In case there

is no vine or creeper adhering to the tree, by which to ascend, maybe another suitable one close at hand will be found to serve the same purpose, from which a stage (or ladder) can be made to connect it with the tree used as a 'Tutu.' Should no such tree be available, the 'Tutu' tree itself has a ladder lashed to it, reaching right up to the branches. As soon as the tree can be ascended, poles are cut below and hoisted up the 'Tutu' tree to form a stage on which one or two persons can arrange the 'Poukas.' The 'Pouka' is a wooden rod carefully made, about 5 feet long, $2\frac{1}{2}$ wide by 1 inch thick. Three or four of these are used. They are tied to different branches, directed upwards in an upright position, so that the upper ends of the 'Poukas' project above the topmost branches, where they are used to attach the 'Tumus' or parts on which the 'Kereru' are caught. The 'Tumu' is very carefully adzed into shape, and to it is attached the 'Aho' (cord), made of 'Muka' (scraped flax), by which the feet of the 'Kereru' are snared. The cord forms a noose spread on the 'Tumu,' the kang end of which passes through a hole in the 'Tumu,' thence down the side of the 'Pouka' to the hand of the snarer, who, as soon as the pigeon alights, by a quick pull tightens the noose and catches the bird. Large numbers of 'Kereru' are killed by this method by the Maori, sometimes as many as two hundred in a day, depending on the number of birds about. The alternative method of snaring these birds is due to the fact that the pigeons are devotedly fond of the fruit of the Miro tree (*Podocarpus ferrugineus*). This fattens the birds very rapidly, but at the same time creates great thirst. A short time before the harvest of this fruit has arrived the Maori ascertain which trees are likely to yield good crops, each native taking his own share in the fowling which follows. The Maori anticipate the thirst of the pigeons by preparing a number of "Wakas" or "Kumetes" to hold water before the pigeons visit the trees. The troughs or drinking vessels are filled with water, and either placed on the ground or secured to the branches of the trees. The snares are then set in the form of running nooses arranged all round the sides of the water troughs, so that the birds cannot reach the water to quench their thirst without putting their heads into the nooses. One Maori often has six or seven water troughs and three or four trees set with snares to look after. A custom exists that the pigeons caught on the day that the snares are first set should remain in the nooses until the following day. The utmost quiet is maintained in the

neighborhood of the snare. No one is allowed to split firewood or do any other work in the vicinity until the evening has arrived and the pigeons have gone off to roost. If a Maori happens to travel through the forest when the Miro tree is laden with fruit, and he comes across a pool of water, he at once examines the adjacent trees for marks of the



MIRO-TREE IN THE FOREST.

birds. If these are found to be in evidence, he sets snares around the pool in order to catch the pigeons when they return to drink. The Maoris who have set snares around the water troughs sleep in the forest, though some of the party are detached to carry the birds home. This system of snaring the pigeons is most deadly as long as the fruit of the Miro hangs on the tree, but when the fruit falls the snaring ceases. Sir W. Buller states that some of his fellow-explorers consider this pigeon is less numerous than formerly, but he entertains no fears for its becoming extinct so long as the native forests remain. "Its relative abundance," he writes, "may be inferred from the fact that in July and August 1882, Ruaro Kahia and his people snared no less than eight thousand of them in a single strip of Miro bush, about two miles in extent by half a mile in width, at Opawa, near Lake Taupo. The birds thus snared are preserved in their own fat, and potted as 'huhuhu kareira'. Food of this kind is esteemed a great delicacy, and elaborately carved 'kumetea'

are sometimes used for serving it at the tribal feasts" (*Birds of New Zealand*, Vol. I, p. 234). Mr. Colenso states that it is of the green bark of the Totara tree that the drinking-vessels are made.

It is impossible to read of the vast numbers of pigeons killed by the Maoris in New Zealand without being reminded of the remarkable quantities of the Passenger Pigeon (*Esigeptes virginianus*) which were formerly slaughtered in the United States. The "red-skin" had hunted these birds on their periodical migrations long before white men appeared upon the scene. The method of the savage was simplicity itself. The Indian watched the movements of the birds and ascertained where the pigeons roosted. He and his mates then repaired to the spot when the birds were fast asleep, and knocked the poor things down with long poles. Thousands of pigeons were secured in this way and used as food. Pennant tells us that, in the interior of Carolina, the small Indian towns were so well supplied with Passenger Pigeons that a hundred gallons of pigeons' oil or fat, which the Indians used with their maize as we should make use of butter, could be obtained in one of these settlements at any time. The bird itself would not bulk at all in the same way as the fat Fruit-pigeon of New Zealand, being, in fact, a bird of slender build.

Mr. Ashton Blackburne wrote from New York in the year 1770 to describe to Pennant the extraordinary flights of these pigeons which passed through the States at the end of February or the beginning of March and again at the end of July or the beginning of August. He refers to the taste for a saline draught, to which allusion has been already made, as enabling sportsmen to compass means of destroying large numbers of pigeons. "They make a hut of boughs of trees, and fix stake-pigeons on the ground at a small distance from the hut. They plant poles for the wild pigeons to light on when they come 'a *volting*' (as they term it), which they do every morning in the season, repairing to the marshes near the sea-side, then the persons in the hut pull the stake-pigeon, when the birds will alight in large numbers on the poles, and great multitudes are shot. Sir William Johnson told me that he killed at one shot with a blunderbuss a hundred and twenty or thirty" (*Arctic Zoology*, Vol. II, p. 326). Audubon tells us that in the year 1805 he saw steamers coming into the docks at New York laden with Passenger Pigeons. The birds had been caught on the Hudson River,

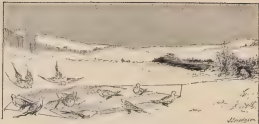
and only fetched one cent a-piece. He himself repeatedly visited one of the wonderful roosting-places of this species, which was situated on the banks of the Green River in Kentucky. Two farmers who lived at Russellville more than a hundred miles off, had driven their pigs, three hundred in number, to be fattened on the pigeons which it was proposed to slaughter. The trees were of great magnitude, and the number of the birds immense. The fowlers armed themselves for the capture of the birds in advance. Some of them were supplied with iron pots containing sulphur, others with torches of pine-knots; many of them carried poles, and the remainder were furnished with guns. The noise of the birds approaching reminded Audubon of the sound of a hard gale at sea passing through the rigging of a closely-rigged vessel. Thousands were soon knocked down by the polemen. The birds continued to pour in. The fires were lighted, and a magnificent as well as wonderful and almost terrifying sight presented itself. The pigeons, arriving by thousands, alighted everywhere one above another, until masses as large as haystacks were formed on the branches all round. Here and there the perches gave way under the weight with a crash, and, falling to the ground destroyed hundreds of the birds beneath, forcing down the dense groups with which every stick was loaded. It was a scene of uproar and confusion. I found it quite useless to speak or even to shout to those persons who were nearest to me. Even the report of the guns were seldom heard, and I was made aware of the thing only by seeing the shooters reloading" (*Own Biography*, Vol. i. p. 325). Alexander Wilson records that the capture of this bird was generally effected by Clip-nets. His evidence is supported by the earlier testimony of Ashton Blackburne. Wilson tells us that the Clip-nets "are spread out on suitable situations, commonly on an open height in an old buck-wheat field. Four or five live pigeons, with their eyelids sewn up, are fastened on a moveable stick; a small hut of branches is fitted up for the fowler at the distance of forty or fifty yards. by the pulling of a string, the stick on which the pigeons rest is alternately raised and depressed, which produces a fluttering of their wings similar to that of birds just alighting, this being perceived by the passing flocks, they descend with great rapidity, and finding corn, buckwheat, &c., strewn about, they begin to feed and are instantly (by the pulling of a cord) covered with the net. In this manner ten, twenty, and even

thirty dozen have been caught at one sweep. Wagon loads of them are poured into market, where they sell from fifty to twenty-five and even twelve cents per dozen, and pigeons become the order of the day, at dinner, breakfast, and supper, until the very name becomes sickening" (*American Ornithology*, Vol. II. p. 205).

The old birds were considered dry eating and inferior in delicacy to the squab young; but even the adult birds became well-flavoured when fattened on corn and buckwheat.

[The headpiece of this chapter is reproduced from Di Valli's work. It depicts a number of Wood pigeons alighting upon birdlined rods in response to the invitation of a tame dove. The tailpiece is after Audubon's plate of the Passenger Pigeon.]





CHAPTER XXXIII.—SAND-GROUSE.

VARIOUS species of Sand-Grouse inhabit the warm plains of Central Asia, as well as the more arid regions of the African continent. Although their flesh is dry, the splendid flight and beautifully arranged patterns of plumage peculiar to the family secure a certain popularity for these birds. To those of us who live in Europe, the most familiar species of Sand-Grouse is Pallas's Sand-Grouse (*Syrhaptes pinnatus*). This is the Sand-Grouse which swept across Europe in a vast aerial wave in the summer of 1888.

The Northumbrian peasants are reputed to have slaughtered these lovely birds in the breeding season, on the score that the birds were excellent under a covering of *pie-crust*. I did not obtain any evidence of these birds being trapped alive. It would have been better to have caught our distinguished visitors than to have bruised their delicate feathers with powder and shot. One intelligent farm-hind offered to snare a few specimens, in order that I might try to induce them to breed in captivity: but I happened to be too closely associated with endeavours to protect these creatures to consent to any abridgment of their liberty.

Mr Turkey informs me that the Chinese fowlers still catch this species of Sand-Grouse as Swinhoe described a good many years ago. His observations were made near Tientsin, where the birds were called "Sha-chee" = sand-fowl. Clap-nets were the means of their capture. The birdcatchers made the best hauls of Sand-Grouse after a heavy fall of

snow had covered the plains, and forced the birds to shift their quarters in search of food. The fowler first cleared an open space in the snow, and then proceeded to lay his Chap-nets, after which he strewed the ground with small green beans. The open space in the centre of the wide expanse of snow was sure to catch the acute vision of the flocks of Sand-Grouse as they drifted with snow-like swiftness over the wintry landscape. The natural result was that the nets were spread in their sight only too successfully. When the birds checked their swift course to settle upon the cleared spot in the middle of the net, the fowler knew that his opportunity had arrived. Jerking the fatal cords from his distant watching place, he frequently enclosed all the members of a flock within the meshes of his toils. It is therefore small wonder that the market of Tientsin is sometimes glutted with these birds. David says that the netting is extensively carried on between Takou and Tientsin.

It is also by means of Chap-nets that our pretty European Pin-tailed Sand-Grouse (*Pinelopus pygmaeus*) is captured in the deserts of Southern France. The occasion chosen, however, is not in the depth of winter, but, contrariwise, in the burning heat of July, when the watersprings are well-nigh all absorbed by the scorching rays of the sun. Then the "Gauguis," as the peasants of the Crau d'Arles phrase the name of this bird, are sorely pinched to find a supply of water to satisfy their needs, and the fowler knows that his opportunity is near. Accordingly, he searches out some isolated rivulet of water which has escaped so far the disastrous effect of the drought. His nets are pegged out at the water-side, and their folds artfully concealed: the operation having been completed, the fowler himself takes up his position before the first flush of dawn. When daylight grows strong and clear, the Pin-tailed Sand-Grouse gather together and wheel up and down their remote retreat, anxiously scrutinising the face of the country in the hope of obtaining their morning draught. No sooner have these charming birds perceived the silvery stream, beside which the fowler lies in ambush, than with one accord they steer their flight to the tempting spot, and fearlessly alight within the reach of the nets. But the fowler must be careful to pull his string as soon as the birds commence to drink, for the Sand-Grouse (say MM. Joubert and Barthélemy-Lapommeraye) drinks so quickly that, unless the fowler is adroit, he will probably lose his chance of detaining the birds in his nets.

The Pin-tailed Sand-Grouse of Asia (*Pterocles albertus*), which is not so rich in colour as the European form, and has a chestnut instead of pale rufous chest, is well-known to Anglo-Indian sportsmen. Hume states that it is easy to catch birds of this species in nooses made of horsehair. He witnessed the method in question being carried into effect.

The handsome black-bellied Sand-Grouse (*Pterocles orientalis*) is found in the wildest districts of Southern Spain, in North Africa, and eastward to N.-W. India. Mr R. M. Adam tells us (*Stag Poohies*, 1873, p. 391) that he found this bird very plentiful at Sambhur in cold weather. He informs us that the local fowlers catch these Sand-Grouse by throwing a net over the birds as they crouch upon the ground in the dark. Mr Hume assures us that the fowlers take this Sand-Grouse by lying in watch with nets, or by setting snares at the spots which these birds frequent for drinking purposes.

Mr R. Thompson writes concerning the Painted Sand-Grouse (*Pterocles farinatus*), which is distributed throughout India, that large numbers are captured during the rainy season by fowlers. Their method of capturing these birds is to approach the birds unseen under cover of a screen made of green leaves and twigs. When the fowler has managed to creep up to the unsuspecting birds in this fashion, he endeavours to drop a net over them. The net is circular, suspended from a hoop, and held out horizontally at the end of a long bamboo, so that it may be silently dropped over the birds as they squat upon the ground. It is by daylight that the last-mentioned manoeuvre is carried out; but, as I have already remarked, the Sand-Grouse is pursued by its human enemies by both day and night. Mr Hume considers that the common Indian Sand-Grouse (*Pterocles eschscholtzi*), which, by the way, is a plentiful species also in many parts of Africa, keeps a vigilant watch against nocturnal surprises. "Still," he says, "native fowlers will at times surprise them, and, during dark nights, in some fashion creep up and drop a net over the entire party. The net used is a very light one, a truncated triangle about eight feet wide at bottom and four feet at top, attached to two light bamboos, each about eight feet long. The cover is marked as it goes to rest, and then the man about 10 o'clock (the night must be dark and is all the better for being windy) steals up and drops the net over the entire pack" (*Gamebirds of India*, Vol. I. p. 72).

Colonel Verbury reports that this Indian Sand-Grouse is numerous in the vicinity of Aden. "These birds," he says, "begin to come in numbers about 7.30 A.M. on return from drinking, to the fields around Al Hantab, and snaring them is a favourite amusement of the small Arab boys, the *modus operandi* being as follows: Eight or nine hardened balls of clay (about one-inch in diameter) are fastened together: each ball is perforated by a borsehan, having a nose at the end of it. A hole is scratched in one of the balls visited by the birds, and the balls buried in it, so that the noses are free: each nose is then opened out, laid on the ground, and baited with a few grains" (*Ibid.*, 1896, p. 30).

[The headpiece of this chapter illustrates the netting of Pallas's Sand Grouse in snowy weather.]





CHAPTER XXXIV.—RED GROUSE AND WILLOW GROUSE.

THE Red Grouse (*Lagopus scoticus*) has always afforded a strange joy to the moorland fowler. Many of us assume the Grouse with the exhilarating exercise of a long day's tramp through the purple heather. The man whose ways are dark and ambiguous prefers to take the birds by craft and subtlety in springs, secretly placed in the runs, which the birds follow when feeding on the tops of their favourite heug. It is at least consoling to reflect that the Grouse has survived the latest persecution. As long ago as the year 1428, our Sovereign Lord James the First of Scotland found it requisite to approve an Act of the Scottish Parliament, "aneit pertrik pluar blak cok gra henys and mair cok that na sic foulis be tane with na man of instrument fra the begging of kentyng quhill august" under "payn of forty schillings" (*Acts of the Parliaments of Scotland*, Vol. II. p. 16). Yet in spite of bad seasons and the strategy of poachers, the sturdy "Mairfowl" shows no sign of being rendered scarce by the efforts directed to reducing its numbers.

I have described in my "Natural History of the Red Grouse" (*Fox and Feather* series) how the hardy dalesmen of Yorkshire and Westmorland shoot Red Grouse by the system which is called "Beeking." It is an accomplishment well known to many old-fashioned men in the north of England. I have not as yet traced the custom across the border. One of our quaint characters, half naturalist and half poacher, remarked to me that, during the sharp spell of frost which we experienced during the last days of October 1895, he had had "a bot spent—beeking grouse." He had, in fact, killed two fine cocks in one morning from his own door. The truth is that his cottage is situated on the edge of a large moor, which

is not preserved by the owner. Consequently our friend has no scruple in testing his capacity to imitate the "call" of the female Red Grouse, either with a wooden stem, with the stem of a clay pipe, or with his lips alone.

It is in the grey and uncertain gloom which immediately precedes the approach of breaking day that "larking" is carried on. The fowler has usually recruited of late at some very unseemable house, and to trudge across the bleak and desolate moors shivering with cold, for it is chiefly in frosty weather that Red Grouse "lark." Arrived at the "smutle" spot, he has to endure the discomfort of a cramped position behind some peatling in the bottom of some drain, or behind the friendly shelter of some stone wall, waiting in silence until the exciting moment approaches. Then it is that he prepares to innuendate the bold cock bird which tries so anxiously to join himself to the company of an imaginary siren.

I am told that the employment of netting, now so common in England, has well-nigh put an end to the medieval but sinful practice of setting snares for the Red and Black Grouse. Not long ago I had a visit from an intelligent Cambrin, who as a boy had a good deal to do with snaring Grouse. He was employed to look after snares by those who rented the moor. They rented the moor that they might shoot it at their leisure. As they required, being poor men, to make their rent out of the moor, they not only shot over it whenever they had a spare afternoon, but they also covered it with snares, assigned to the care of my informant, who was very young at the time. He became very deft at this, and could set three hundred snares in a day. Each snare was made of a single copper wire (this replacing the earlier and more primitive *boeshour noote*), and was set in oval form a handbreadth or span from the ground. It was supported in the proper position by a cleft stick or twig, and secured to a bunch of growing heather by a piece of string. The snares were set "as rank as possible," chiefly in broken, mossy ground, in runs through the heather, and in places where the birds "sneel," *ie.*, pick up gravel to aid their digestion. "Wherever there is a place where a Grouse is likely to settle and turn round,—*there* a snare must be set;" such is, or at any rate was, the theory of those who followed this shameful system of persecuting the gay and unsuspecting "Gorcock." The difficulties were considerable. Birds often filled the snares in the place of more savory game. When this happened, the captive jumped up and down until

relief came, for the Book is too acute a fowl to struggle itself in vain efforts to escape. I ought perhaps, to explain that the Grouse-snares was set with the intention of catching a bird by the neck. Sometimes it happened that a snare slipped over the shoulders of a Grouse. In such an emergency the bird was certain to be retained alive in the trap.

My informant, a thoroughly voracious person, assured me that the number of snares set at one time upon the moor where he was employed as a lad was not less than one thousand. The best returns from snaring were obtained in late autumn. When the wild gales of winter arrived great damage was done to the snares. A fall of snow was worse, for it beat the masses down to the ground and rendered them useless. Black Game lose heart when they and themselves ensnared, but Red Grouse do not do so. The Moorfowl is a bird of high spirit; if he has the misfortune to place his head in the halter, he fights gamely to obtain his liberty. Mr Harold Henderson, who has exceptionally good opportunities for studying the customs of the Irish peasantry, informs me that he has come across traps intended for catching Hares on several occasions. A specimen of such a "Hare-trap," which Mr Henderson recently observed upon a bog in Co. Leitrim consisted of a pitfall in the ground. The trap measured about fifteen inches by nine inches at the top, and was about eighteen inches in depth. The earth had been taken away from inside the pitfall. Perhaps I should rather say that the sides of the trap had been hollowed out at the bottom, so that any Hare that might have the misfortune to topple into the pit had for its destruction must resign its liberty to the cruel trapper. The bait employed to entice the small mammal to precipitate itself into the hole in the ground is generally a sheaf of corn. This is fastened to a pole at the edge of the trap. The grain is quite as attractive to the Red Grouse as to four-footed animals, and the peasant has often to extricate a Grouse from his pitfall. The poacher often sets as many as four different "Hare-holes" about one bundle of corn, which is secured in the centre of the traps. When any stray Grouse from the higher ground observe the bundle of corn, they naturally fly to the spot which offers the attraction of a feed. As the hungry birds endeavor to strip the grain from the straw, one or two of their party very probably miss their footing, and flutter into the bottom of the "Hare-hole."

It is in the great lonely mountain valleys of Norway, and on the

black fells of Lapland that such marvellous numbers of the White Willow Grouse (*Lagopus albus*) are annually snared to supply the markets of Paris, London, and other great cities. Many a household of the far north would fare badly if there were no Ripsa to be trapped during the long months of ice and snow that follow the brilliant arctic summer. When my friend Mr John Benson was returning to his favourite fishing quarters at Opheim in the spring of 1895, I requested him to ascertain for me the exact method by which the Willow Grouse are captured in that part of Norway. Accordingly, he discussed the subject with the farmers of the district, and favoured me with the accompanying information: "In this part of Norway, the Willow Grouse or 'Snapper' is taken in snares in the winter. The snare is made by taking two lots of white horsehair, six hairs in each lot. These are rolled together, and the two lots are then rolled into one. When the strand is complete, an ordinary slip-knot is made at one end, and the snare is attached to a stout fork of wood (as shown in the head-piece). The fork is then set in the snow, and a small fence of birch twigs is inserted on each side. The prongs of the fork which supports the noose are six inches apart. The snare is tied to the stoutest side of the fork, and kept open by means of two small pegs which are inserted in slits made on the outer surface of the two sides of fork. The noose is preserved in the desired position, by the two strands of hair being separated so as to permit the pegs to pass between them and thus give them support, the hair closing again on the pegs; alternatively, a small notch is cut on the surface of the peg which keeps the snare in the necessary position. The noose should be about eighteen or twenty inches long, and the lowest part of the noose should hang about four inches above the surface of the snow."

Mr Benson's remarks corroborate the account of trapping Willow Grouse which Mrs Kumev has been good enough to translate for me from *Feldskrift fra Japan och Nordskandinavien*, 1893-1895 — "In Lapland and Sweden," says the Scandinavian writer just referred to, "these birds are generally caught in snares ('reusak-koel') put up in the following manner: an enclosure is made of birch twigs, stuck into the ground as if they were growing. Openings a foot wide are left for the snares. A noose is attached to a birch-rod with the hook left on. A forked branch is then placed in the opening, the two ends of the fork being planted in the ground. Small notches are cut in the bark to keep the noose in

position. The noose is made of twisted hemp or linen thread about the thickness of fine packthread, and must be four inches in diameter, and the lower edge must hang a little more than an inch above the snow. Small branches of larch twigs, full of buds, are then tied to sticks, and put down in the snow, one before and one behind the snare, two feet apart. When the Willow Grouse has eaten the buds off one branch, it wants to have those on the other side, but has to run through the snare to get at them, and is caught. "Some fowlers have a thousand of these snares and less than a hundred thousand grouse are never snared." Mr Biesickiowski tells me that the Scheliam trappers take Willow Grouse in the winter time by means of old and worn out nets. The fowler first ascertains the favourite feeding grounds of these birds by searching for their droppings upon the surface of the snow. He then spreads his nets on a spot cleared of snow and trodden down by human feet. The Willow Grouse run over the cleared space and become entangled in the meshes of the net. Another method of netting the Willow Grouse is that which Turner saw practised in Alaska. The male birds are very pugnacious in that wild region in the early months of the year. The natives turn their bellicose propensities to good account. The bowler prepares a stuffed male and fastens it firmly to a sharpened stick, which is inserted into the body of the dummy. He provides himself also with a small net of three or four feet square, to the corners of which two pegs are attached to secure it to the ground. The native then starts in search of a pair of Willow Grouse, which he is sure to find near some patch of snow on the open ground. He approaches the birds; pegs his net by two corners to the ground, and retires. The male bird hastens to show fight to the supposed intruder, and while he is giving battle to the dummy the native perks a string, which throws the net over the Willow Grouse. So unsophisticated are, or were, the Willow Grouse in Alaska that Mr Turner once saw a male bird advance to the decoy while the native was still setting the net, not a foot from the decoy. But in Alaska, as in other parts of the circumpolar regions, this hardy bird is principally captured by the instrumentality of snares. When the Willow Grouse return in spring to their summer haunts on the Koryyak Peninsula the natives adopt a ruse for their capture not dissimilar to that which is familiar to us as practised in the north of Europe. They arrange pieces of brush into small clumps, set in a line, and extending along the ice,

On the branches of this brush they hang nooses of sinew. "The place," says Mr Turner, "where the birds usually go back to the peninsula is near the end of Norton Bay, opposite Shskatohk and Egovik. The natives there prepare these thickets set with nooses during this season of migration. The birds come in such numbers to these places that, when they see the bushes, they follow them and many thousands are caught in the snares. A single native, having only half a dozen of these bushes, placed about seventy-five yards apart, cannot take the captured birds out fast enough. They say the birds seem to fall to the ice from every direction, they come in such numbers. A single man will, in a single day, catch a sledge-load of them. The natives bring them to St Michael's by the land, and sell them in that quantity for a mere trifle. They are used for dog-food at this season" (*Nat. Hist. Alaska*, p. 153).

The Ptarmigan (*Lagopus montes*) is not, to my knowledge, captured in snares on our Scottish mountains to any large extent. Mr J. G. Millais has given an entertaining description of a novel method of capturing this bird in his *Game Birds and Sporting Sketches* (p. 71). The poacher discovers a place on the hill where the Ptarmigan are in the habit of sitting when snow has fallen. To this he repairs while the snow is still soft, armed with a bag of oats and a beer or champagne bottle. Arrived on the ground, he makes a number of indentations in the snow with his bottle, and fills up the bottom of these cavities with corn, taking care to sprinkle some grain around the holes. The Ptarmigan over-reach themselves in craning their necks to devour the grain which they see at the base of the holes. Slipping in head-foremost they are unable to extricate themselves from their awkward position, but remain prisoners perforce.

In Iceland the Ptarmigan (*Lagopus rupestris*) is captured by means of rude string nooses set in the snow, to which the birds are attracted by grass seeds, these being strewn about the snares. Great quantities of birds were taken in this way in former years, and sent by steamer to Denmark (*Ibid*, 1835, p. 396). Fabricius observes that in his day the Ptarmigan was extensively snared by the Greenlanders. The engine used to effect the capture of the birds consisted of a long, plaited cord made of threads of sinew, in the centre of which some running nooses were tied. When two men decided to hunt Ptarmigan, they started in pursuit of the

birds, with the cord just mentioned borne between them. If they found the birds, they endeavored to get a single bird between them, when they contrived to hitch one of the nooses round its neck. Fabricius remarks that the birds became so tame in winter that it was comparatively easy to approach them. He himself often assisted in snaring the birds in the snow.

[The headpiece of this chapter illustrates the Norwegian method of snaring Willow Grouse. It is based upon sketches prepared by Mr. Benson when in Norway. The tailpiece depicts "Becking" for Red Grouse.]





CHAPTER XXXV.—BLACK GROUSE AND CAPERCAILLIE.

THE BLACK GROUSE (*Lagopus lagopus*) figures largely in the commercial statistics of fowling, its flesh being almost as familiar an article of consumption in the great cities of Europe as among the forest wilds of Central Siberia. Our poachers in the north of England occasionally capture a few head of Black Game in the ground-snares which they set for the Red Grouse. They assure me that the Black Cock, in spite of his beaver appearance, is not as plucky a bird as the Red Grouse; or at least that the former does not fight very determinedly for his liberty when once ensnared, but soon loses heart, and abandons all hope of breaking through his bonds. The "poult" of this species are so tame and skulking in the month of August that many of them are felled by the Rinder shepherds with their pastoral staffs. These fellows are often adept at disposing of game which has been obtained unlawfully.

Mr Benson tells me that the snares used for catching Black Game in Western Norway in the winter months are similar to those used for taking Willow Grouse, but are made of stronger strands of hair. They are set near juniper bushes, or, if the weather is open, near ants' nests. Our Scotch peasants, especially in the eastern counties, set snares to catch

both Black Grouse and Grouse on the corn when it is standing in "stacks" to dry, prior to its being placed in stacks for the winter. Mr Biesickiowski writes to me that in those parts of Southern Siberia where corn is grown large flocks of Black Grouse gather about the stacks in winter, especially when these are composed of wheat or buckwheat, and are situated near a forest. Owing to the paucity of farm labourers the stacks of that



WHEAT STACK.

region are made narrow, scarcely three or four sheaves abreast, but often fifty paces long. In order to keep these stacks from falling, staves are driven into the ground on both sides of them. The stacks are seldom carried to a greater height than three metres. During severe frost, Black Grouse fly to these stacks to feed upon

the corn, and are caught in the manner now to be described. A cylinder is placed of willow twigs in basket fashion, and built up to the same height as the stack, having a base broader than its general diameter. This arrangement is placed inside the stack in the course of its formation. The opening at the top of the cylinder is fitted with a lid, which revolves round a string of twisted horsehair so that the lid covers the opening of the cylinder, always returns to the horizontal position, and is hidden from sight by small pieces of straw. When a Black Grouse, perching on the top of the stack, happens to tread on the lid of the cylinder, the latter turns, and the bird falls inside the cylinder. Sometimes, when the stack is longer than usual, two such traps are placed inside the sheaves.

Pennant, who doubtless derived his information from Pallas, the great explorer of Siberia, describes a method of trapping Black Grouse in that country which bears a close resemblance to that repeated by Mr Biesickiowski: "In the open forests of birch, a certain number of poles are placed horizontally on forked sticks; by way of allurement small bundles of corn are placed on them, and not remote are set certain tall baskets of a conical shape, with the broadest part uppermost: within the mouth is placed a small wheel, through which passes an axis fixed so nicely as to admit it to play very readily, and permit one side on the other, on the least touch, to drop down and again to recover its position

The Black Grouse (see) are soon attracted by the corn on the horizontal poles, first alight on them, and after a short repast fly to the baskets,



attempt to settle on their tops, when the wheel drops sideways, and they fall headlong into the trap, which is sometimes found half full" (*Arctic Zoology*, Vol. II, p. 315). Mr Mallais suggests that a "somewhat deadly method of capture is by clearing a small space in the centre of a wood where the birds are known to resort to rest or feed during the day. The ground is cleared of all the sticks and heather, and thickly strewn with corn &c. in the centre, which is surrounded by a network of mosses, through which the birds must endeavour to pass to get at the food" (*Grouse Birds and Shooting Sketches*, p. 38).



TRAP FOR BLACK GROUSE
SET UNDER CORN-STACK.

Mr J. G. Mallais tells us also that a highly successful method of killing Black Grouse is for the pointer to erect over himself a little arbour of shewers when the fields have been cleared of the stacks. "He knows well that so long as there is a single stack left standing in the field, the birds will come to it in preference to hunting for the food which is scattered all over the field, and in addition to this, Blackcock always like a situation which gives them a commanding view of the surrounding country, so that even when feeding they may be well on the alert to guard against surprise. He therefore erects in his ambush a stake to support the shewers around him, and of such a height as to make another stake, fixed at right angles, a comfortable perch for the arriving birds to pitch on, and feed on the ears of corn around them. For a man of ordinary height, this cross-bar is then within easy reach of the arm when extended, and it only requires caution andadroitness on the part of the pointer to be successful in pulling down his unconscious victims within his hiding-place. A stuffed Black Cock will also tend to attract the others to the spot" (*Ibid.* p. 38). Gollenski mentions that in Siberia many Black Cock are shot to decoys ("Mannequins"), that is to say, to stuffed dummies. Mr Douglass reports that this practice is also common in Western Russia.

An ingenious method of snaring 'Ouzlagel' or Black Grouse is that known in Finland as 'Punnas' or 'Kaha' (*Fidschicht for Jägare* 1834, p. 831). A funnel-shaped cage is made of birch sticks, six feet in length; at the bottom, the sticks are placed close together; at the upper end, the distance is greater, and the ends of the sticks are pointed. In the centre, near pole, two feet higher than the sticks, a crossstick is loosely fastened near the upper end of the pole. The ends of the birch sticks forming the funnel, as well as the crossstick, fastened to the pole, are garnished with oats. When the bird, attracted by the grain, alights on the cross-



TRAP FOR BLACK GAOSE.

stick, the latter tilts, and the bird falls into the basket. A pine branch turned upside down and fastened to the pole contributes to keep the bird a prisoner. In order to entice the bird to the spot, two young and slender branches, stripped of their branches, are placed in front of the trap. A pole is placed between them at the height of the cage. This trap answers best in late autumn and early winter, as the bird has less access to grain at such a season of the year.

In Norway Black Grouse are snared by means of the so-called "Orf-lanne." This (as shown in the headpiece) consists of a thin, unbarked stick, four to six feet long. Holes are bored through the ends of the pole, in which the fowler inserts two small birch branches, each garnished with a snare. The centre of the pole is now fastened to the top of a red pine or larch, but so far above the branches that the "Orf-lagel" or Black Grouse is obliged to walk out on the pole to reach the bait, which consists of two bunches of birch twigs full of buds, that are tied to the ends of the pole under the snares.

Yet another plan of capturing this handsome bird is to take it by night in the depth of the Northern winter. The Black Grouse roosts chiefly on the ground, except during pairing time. In severe frost the bird burrows under the snow, in which case it is not only liable to fall a prey to the fox, but, as Pontoppidan tells us was the case in his day, is often placed at the mercy of the fowler. The good bishop assures his readers that the Black Cuck burrows in the soft snow with its crop full of food. The peasant observes during the daytime the trees on which the Black Grouse are in the habit of perching, knowing that the birds are fond of roosting in a favourite haunt. When evening arrives, a couple of fowlers start in search of the sleeping birds, wearing snow-shoes in order that their approach may be as noiseless as possible. The leader of the party carries a torch, while his companion bears a long-handled net, shaped like a landing-net. As soon as the peasants discover a hole in the snow in which a Black Cuck is conjectured to be hiding, the net is placed over the orifice, and pressed as hard as possible to the ground. The capture of the bird is thus secured. Great commercial importance attaches to the pursuit of the Capercaillie (*Tetrao urogallus*), thousands of which are killed in different parts of Russia. Mr Biesickierski informs me that the trap by which this large gamebird is most commonly obtained in different parts of Siberia is that known as the "Stopiec." This is a variety of what we popularly call a "Deadfall." It is set in conformity with the habits of the species which it is designed to capture.

The Capercaillie, like the Black and Red Grouse, is very partial to pebbles, which assist the muscular action of the avian digestive system. The Siberian hunters have consequently come to regard small gravel as the best bait to attract these birds during the long and dreary winters of their country. Accordingly, they sweep away the snow from small

patches of gravelly soil in the forests, and utilise the spots thus laid bare for the erection of traps. When a fowler desires to build one of these engines, he commences operations by driving two upright posts into the ground. To these he affixes two walls, each of which consists of two logs, which are two metres in length. Between the two wooden walls thus formed the peasant sets two more logs, three metres in length, and nailed together, his intention being that the latter logs should crush any bird which may enter the trap. The "Stopure" is set in the



SIBERIAN DELEVAL (after Bouchard).

following way. The logs are litted and through the interstices of one of the walls a small stick is inserted, so that it just reaches the opposite wall. Upon this horizontal stick there rests vertically another, which supports the log in a raised position. The birds run to the gravelly spot free from snow between the log walls, and when one of their number touches the stick, the stick slips from it, and causes the logs to fall and crush the birds with their weight. This trap is used throughout Siberia, indeed Mr Bouchardski is convinced that the majority of the Capercaillies, Black Game, and Hazel Grouse brought into the Siberian markets are birds which have been obtained in this fashion. Immuus describes the trap which he found to be commonly employed to catch Capercaillie in Lapland as consisting of "six parallel pieces of wood, each placed at a little distance from the next, and all joined together by a transverse

bar at each end. Over them the twig of a tree is placed horizontally, one end of it being fastened to the frame, the other introduced into a loop holding an upright weight. An upright splinter of wood is made to support this twig in an arched position, so that when the bird goes under it to roost, or otherwise touches the splinter, the latter falls down and the bird is caught" (*Linnæus Lappmarken*, Vol. i. p. 179). Linnæus tells us likewise that in his time it was the custom to preserve the breast of the Capercaillie by drying it with salt, and then baking it in an oven. When thus cooked, the breast of the bird was hung up in the roof of the house until wanted, which might not be for two or three years.

The trap which Linnæus met with appears to have been that known as the "Flaka." This possesses the advantage that no beast or bird of prey can touch the game caught in it. It is intended to be placed in places where berries grow plentifully. Indeed, the fowler is careful to bait the trap by scattering cranberries round about it. The "Fallstock" is made of two poles about four feet long, of which the one fastened to the ground is slender. The other, which is placed erect, is either so heavy that it kills the game of its own weight, or it is artificially weighted with stones. In order that the deadfall may descend straight on the thinner pole, a post is placed at the end of the latter, and two pegs are driven into the ground at the other end, between which it falls. Yet another engine devised for the destruction of this splendid forest bird, is that which the Norwegians call the "Lina." Three stout poles, four feet long, are required to make this deadfall. One of these poles is placed on the ground and made fast by two sticks which are so put down as to form a cross at either end of the pole. The other two poles, which constitute the "drop," are split at one end and fastened together by means of a cross-stick inserted in the crevices. The distance between the joined poles must not be greater than such as the third pole can fill up, so that when the joined poles descend upon the third the trap looks as if the three poles were lying side by side. The pole which is placed on the ground must be so much shorter than the other two as to reach exactly to the cross-stick between them. The falling beams are often weighted with stones.

Dr Finch has kindly called my attention to his description of the Siberian Deadfall illustrated in the accompanying engraving. The woods were interesting also in other respects. Along the ridges were

found countless numbers of a peculiar sort of trap. They were placed, one to three in number, at short distances in the path cleared in the woods, serving us an obstacle rather than as an ornament. This trap



SCANDINAVIAN SNARE-TRAP (FROM PERLIN).

consists of three or four poles ten feet in length, ingeniously held up by a lever so as to fall down the moment the foot of the bird touches the spring (*das Stollholz*) on the path, which is strewn with twigs. These traps are of use only in countries where game is so abundant that no protection is needed: our green-coats would condemn them in spite of their ingenious construction. The Russian name of these traps is ' *Shopai*,' and they are commonly used all over Siberia. Not only are Hazel Grouse and Black Grouse caught in them, but also hares; and as the weight of the beam is capable of killing a wolf, it is easy to imagine how flat a Hazel Grouse is made by it. (*Born and Wag Siberia* p. 626).

But it must not be supposed that it is only by the aid of Deadfalls that Capercaillies are secured. A common method in Scandinavia is to take the birds in snares, especially in the month of October. The *snare*, *spennet*, as it is called, is to drive two stout sticks into the ground, between two trees or in a narrow mountain pass. The stakes in question, when driven into the earth, stand up about a foot above the ground. Several smaller twigs are planted beside them, to make a little fence on each side of the snare.

The two upright sticks either end in crooks or they are forked at the upper ends, and a third stick is placed across the two uprights. Pine branches are fastened to the stake, to disarm the fears of the birds, and two or three horsehair (or wire) snares are attached to the top bar in such a way as to hang within three inches of the ground. The snare is occasionally set between the two uprights, without any top bar being employed to connect the side posts, but, in such an eventuality, the snares are purposely set in the runs of the birds, and plenty of twigs must be employed to guide the birds up to the opening in which they are to be noosed. The bait used in this case also, to attract the birds, consist of a few berries. It happens occasionally that the Fowler desires to capture Capercaillies alive. For that purpose it is usual to employ a net called a "Kasse." This is woven of twisted silk, five feet square, with meshes through which the Capercaillie can thrust its head. When the Fowler wishes to set the net to catch a Capercaillie, he seeks to find the run of the bird among the bushes. He then suspends his net across the usual path of the bird, fastening it with fine woollen threads to the surrounding pine branches, and securing it also to the trunks of some neighbouring trees by the agency of a coarse silk cord, which passes through the outer meshes of the net. When the Capercaillie runs his head into one of the meshes, and finds that his progress is impeded, he pushes his body forward; the cord pulls the net together, and the bird becomes in a bag with the wings pressed close to the body. Godlewski tells us that some of the Siberian hunters in the Irkutsk district kill Capercaillies in late autumn and winter by making artificial hedges or fences in the favourite quarters of the Capercaillies, leaving only a few openings. In these they place deadfalls, presumably of the pattern mentioned by Biesiekierski, though no doubt the plan varies in detail in different districts. Every one knows that shooting Capercaillie at break of dawn, when the old males are singing, if the expression may be used to express the love-modes of this bird, is extensively practised among the great forest regions of Northern and Central Europe. It is not perhaps equally well known that Siberian sportsmen pursue the Capercaillie at other seasons with dogs—not that the dogs may "set" the birds in the ordinary sense—but that the dogs may force the Capercaillies to remain perching on a bough within gunshot until the gunners come up. The old Capercaillie is a cunning bird, and understands how to keep a tree

between himself and the gun. But when the Siberian birds are "tree'd" by dogs, which stand at the foot of the tree and bark, the birds are so much interested by the phenomenon of the barking dog that they allow their curiosity to get the master of their prudence, and thus expose themselves as marks for the sportsmen.

Another species of grouse which is often shot when "tree'd" by dogs is the pretty "Gelmotte" or Hazel Grouse (*Tetrao bonasia*), the "Famodino di monte" of the Italians, and the "Hazelhuhn" of German foresters.

It is to be regretted that this bird is decreasing in the north of Italy in consequence of the persecution to which it is subjected. The fowlers in Lombardy set snares for these birds and Black Game under the pine trees in winter, because the ground beneath the trees is free from the load of snow, which is intercepted by the branches. The slaughter thus effected is more destructive than remunerative, on account of the difficulty which the fowler experiences in returning to his traps after a heavy fall of snow has taken place. Consequently the unfortunate birds which find their way into the snares are often devoured by Marten Cats and other furred predators. Bichon tells us that the Paris market was supplied with "gelmoettes" from the forests of the Ardennes.

Stumphius, quoted by Aldrovandus, affirms that the Hazel Grouse was in his time chiefly captured in the spring and in the fall of the year. The fowler, he says, who wants to capture these birds, imitates the call of the species in the wood. When the wild birds hear his call they gather together. The fowler, having hunted the birds which he wants to take, makes a small hut and fixes a staked net ("rete erectum") in front of it. The fowler then entices the bird to the hut by means of his whistle, and when the Hazel hen is running about in front of the hut, it soon becomes entangled in the net. He adds that, if the fowler chances to capture a male bird, the female will find other mates, so that he may take one male after another if the female stays in the vicinity of the nets. On the other hand, if the female happens to be caught, the males will go away in search of another female.

Bailly says that the Savoyards decoy this bird within shot by repeating its call with a small silver or tin whistle or even with a hollowed beech-nut. The birds are so simple in heeding the voice of the channer that they fly from tree to tree in search of their supposed relative and

at last alight above the head of the hunter, "who usually allows the birds to perch before he fires." Mr Dresser considers that it is an easy matter to "call" Hazel Grouse, and he speaks from personal experience in Finland. He adds that it is difficult for a person who has not shot these birds to imagine how very easy it is to look carefully all over a tree on which the birds are sitting, and still not to be able to discover a single one; for the colour of the plumage harmonises so well with the dark brown tone of the tree-bark, that the bird appears to form a portion of the branch on which it is sitting. Dresser was told by Mr Socher that Hazel Grouse are sometimes caught in the snares set for Fieldfares, hunted with hares. Snares are also placed for them, attached to sticks which are bent in a bow-shape and fixed in the ground.

An American ally of the "Gelinotte" is to be found in the Ruffed Grouse (*Bonasa umbellus*). Audubon tells us that birds of this species were chiefly killed in his time in Deadfalls set by means of a figure of four. Many of them were taken, however, in trap boxes during the winter. He further informs us that the Ruffed Grouse is to be heard "drumming" from different parts of the woods in spring and towards the latter end of autumn. He shot many cocks by imitating the sound of the bird's wings striking against the body, beating an inflated bladder with a stick, preserving as far as possible the same time as the bird.

A contributor to the *Field* of 24th August, 1878 states that it is rare to see a Ruffed Grouse engaged in drumming, as it requires a vast amount of patience to creep up close enough to obtain a fair view, and, moreover, the sound is very deceptive, being ventriloquial in character, but the actions of the bird, when seen, are very peculiar. "After a moment of quiet, as if in a deep trance, he raises his head to see if the coast is clear, and then puffing out his ruff and cocking his tail, and seeming to swell to twice his natural size with self-importance, he beats tattoo with his wings, as he sidles along the log which he has chosen for his stage, his audience consisting only, as he believes, of his admiring mate, who seems doubly impressed by her lord and master's extraordinary pantomime." The same writer states that this bird is commonly snared for market by the following device:—A fence is constructed of stakes or "straddle-trees" in the woods, by the hill sides, usually where fruit and mast are abundant, and the interstices filled with brushwood and leaves,

making an almost impenetrable hedge two or two and a-half feet high and twenty or more rods long. At intervals of about four feet a hole some three or four inches in diameter is made, in which is set a noose of fine brass wire. When a bird meets with this obstruction he prefers to follow along and seek a passage through rather than fly or jump over, and knowing this trait, the trapper often chooses a little path the width of his hand on either side of the hedge for the bird to run in. The grouse speedily finds the openings, and in attempting to pass through incurs his head into the running noose, which is consequently drawn tighter and tighter with each attempt to escape. This device is visited daily in warm weather, and every other day in cold weather, for the purpose of collecting the birds and resetting the snares.

The well-known Prairie Hen of North America (*Tympanuchus occidentalis* of *The Catalogue of Birds* but better known in its own country as *Caperdonna capata*), is, or was, much in large numbers for the markets of Europe. Audubon states that the Indians with whom he lived on the Mississippi killed this bird with their own weapons, even the grouse chained to alight on the ground or low bushes. The same ornithologist was informed by Mr David Eschschack of London in 1832, that in the spring of the year the birds of this species assembled in large companies to hold their tournaments of love. 'In these chosen spots it is said the cunning natives were accustomed to strew ashes and rush upon the bird with sticks, when blinded by the dust they had raised. Major Ross King tells us that the jerky of Prairie Hen which remain unbroken at the end of the season, or others collected from all quarters in immense numbers often form a sort of 'yard' in the snow, squatting together at night as the quail do under similar circumstances. At such times the whole of them may be easily netted at once and it is principally in this way, I fear that the birds now so largely sent to the English market, packed in barrels with bean, are obtained by Yankee dealers' (*The Sportsman and Naturalist in Canada*, p. 152).

Mr T. H. Pritchard, of the Lac Seul Mission has most kindly sought to obtain information for me as to the methods of snaring birds adopted by the Indians at his distant station. He reports that the Indians procure most of their winged game by means of the gun and the bow and arrow. The only bird which he has ascertained that the Indians do

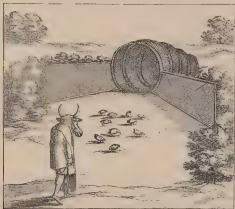
score is the Canada Grouse (*Canachates canadensis*), popularly dubbed the "Wood-partridge." These birds are "usually found perched on trees and as a rule are very tame and will permit a man to approach with a long stick, having a noose or snare attached to one end. He raises the stick very cautiously until the snare is around the bird's neck, when it is of course easily drawn down to the ground."

Hine refers to the same device as practised in Labrador:—"In crossing the passage, Pierre saw a partridge or Canada Grouse, sitting on the branch of a tree. . . . He then cut a stick eight feet long, and made a noose of twine, and cautiously approached the bird which, according to its habit, quietly waited until the noose was placed before it, when it thrust its head in, and was caught, but as Pierre was triumphantly carrying his prize towards me, the noose gave way and off it flew, after short but very embarrassing gyrations on the ground during which we vainly endeavoured to catch it. This mode of snaring the partridge, or Canada Grouse as it ought to be called is usually practised by the Indians, as well as by the settlers in the inland parts of Canada, where the bird is common." Mr Bell of the Canadian Geological Survey took large numbers of this bird in the same manner. His description is given in Sir William Logan's *Report for 1857*:—"On the way we killed a number of Canada Grouse every day, but other game was rather scarce. The grouse were always very tame, and we generally killed them in a way that would surprise most people. When we came upon a covey we gave it a sudden start, which made the birds fly up into the surrounding trees. A rod was then cut, to the end of which was fastened a noose. This was held up in front of the nearest bird, which generally darted its head into the noose, but if it did not do so, then the noose was gently passed over the head, and by a sudden jerk the bird was brought to the ground. In this way we went from one bird to another, and usually secured all we saw that were within reach. Sometimes they are killed with stones, and it is wonderful to see how pertinaciously a bird will sit, however near the stone may whiz past it, until it receives such a blow as will knock it over. Even when struck, if not severely injured, it will occasionally remain sitting." (*The Labrador Partridge*, Vol. 1, p. 174). This custom of snaring grouse extends across the entire breadth of the North American Continent. Dr. Hassel assures me that Franklin's Grouse (*Canachates franklini*), which replaces

the Canada Grouse to the west of the Rocky Mountains, is still snared by Indians and whites in the Cascade Mountains by a noose on the end of a stick, as it sits on a bough by the side of the trail. Nikolski affirms that the Sharp-winged Grouse (*Falcipennis kurtlenko*) is so remarkable for its stupidity that the natives often take the bird with the hand or fell it with a stick (*Revue Ornithologique de la Sibirie Orientale*, p. 772).

[The woodpecker of this chapter illustrates the Norwegian device of snaring Black Game known as the "Gjerlomme" (p. 335). Two hybrids (male and female) between the Black and Red Grouse form the subject of the tailpiece. They were shot in Kirkcudbrightshire.]





CHAPTER XXXVI.—TUNNELLING FOR PARTRIDGES.

THE COMMON GREY PARTRIDGE (*Perdix cinerea*) has long been a prime favourite with the sportsmen of Europe. Nor is this surprising when we recollect its many excellent qualities, especially the hardness of its constitution, which renders it able to adapt itself to the vicissitudes of climate experienced in different parts of its range. Indeed, it appears to be as much at home on the steppes of Russia, or in the sunny valleys of Central Italy, as among the rye-fields of Germany or the outstubbles of the Inner Hebrides. Eastward of Persia our home bird is replaced by one or other of its three allies. The Ringed Partridge (*Perdix dauzoni*) is paler than our Partridge, and the male has a conspicuous black "horseshoe," as may be seen on reference to Raddie's figure of this Asiatic bird (*Beasen im Süden von Ost-Sibirien*, Taf. XII). The feathers of the chin and throat are also elongated. I mention this fact

because examples of the Common Partridge have been shot in Britain which possessed *not only* dark "browshanks." Hodgson's Partridge (*Perdix hodgsoni*) inhabits Southern Tibet, and has the breast ornamented with a large black patch. Pipewitsky discovered a similar but smaller species in Northern Tibet. This last is known as *Perdix syriacus*. Whether the form of the Common Partridge found in the north of Spain is entitled to be considered a separate species is still a matter for individual opinion. I was myself struck by the small size of the birds which I saw in Navarre. It is to be expected that a *grouse* which thrives in such a variety of situations should develop well-marked local races. Most of us associate the Partridge with the bracehooker, but in bygone days the sport enjoyed with this game-bird was of a varied kind. Of course the most elementary fashion of capturing the Partridge was to take it by the instrumentality of beschoir nooses. To us moderns this practice seems consummate villany.

Nevertheless, as a matter of curiosity, we may bestow a passing glance at the experiences which the "Séduire Inventif" recorded more than two hundred years ago. One of the pastimes of the French peasantry was to snare Partridges. The peasant who found a covey of Partridges in a wood made a ring or circle of twenty or thirty paces. He then arranged a small hedge of brush, six inches high, between the roots of the coppice wood, leaving interstices in this miniature fence only large enough to admit the passage of a Partridge. He next inserted a couple of small stakes into the earth on each side of these openings, between which he suspended a household snare at such a height as to catch the neck of a Partridge. Sometimes he completed his trap by scattering grain in the vicinity of the snares. If the birds happened to be found bespooning a bush, the peasant altered his tactics so far as to set his nooses in the little footpaths which the birds were observed to follow. In this eventuality the poacher visited his snares about once in the afternoon. When the birds were pairing in the spring, and especially on mornings when a bear frost covered the ground, the peasant used to catch the birds as they ran along the paths through the growing corn during the early hours. In this case also the poachers made artificial hedges to hinder the progress of the birds. When the poor things ran playfully after one another they found their course checked by the fence set across their runs. The birds had then to stoop their necks in order to pass

through the artificial gaps. By so doing they incautiously run their heads into the nooses. Both the German and French peasants used to snare Partridges when snow was lying on the ground.

Bisickowski informs me that Partridges are still snared in Poland. Their capture is contrived by means of running nooses made of twisted horsehair. These are attached to strings stretched crosswise upon a common wooden hoop. This engine is laid upon the snow, and baited with buckwheat or waste grain. I am not certain that English poachers



POLISH PARTRIDGE TRAP.

are strangers to this device. Certainly some of their number think very little of setting snares in the places where Partridges dust their plumage. This is generally at the bottom of an old hedge, in a position which gets the sunlight often in a run made by sheep; indeed, you may find their feathers in such places. The snare used in the north of England is similar to that which I have described in the chapter on the Red Grouse. But for snaring Partridges in the snow, the most wicked information is to be gleaned from the pages of the "*Solitaire Inventif*." When the countryside has wrapped in a sheet of snow the Partridges become pinched for food, and search for subsistence in all open places, often at the base of bare trees, or even in the neighbourhood of houses. The snow is always less deep in such situations. The peasant who understands the method of "*Colletier*" or poacher looks out for the traces of the birds upon the surface of the snow which covers the fields which have been sown with corn. Should he succeed in locating a covey of birds, he returns in the evening to the same spot. Seizing a wooden shovel, he proceeds to clear away a square space of from eighteen to twenty-four feet. The fowler plants across the middle of the exposed surface a small hedge only six inches high, in which he leaves open passages, each of which is furnished with a snare. He then scatters some corn on both sides of

this little barrier. When morning light arrives the furnishing birds soon find out this open spot in the centre of the snowy fields. Accordingly, they alight upon the bare earth and run to and fro, picking up the seeds. While so employed they naturally wander from side to side, and sooner or later some of them find their necks entangled in the hanging masses.

The Germans also understand the capture of Partridges by means of snares ("Schlingenstellen"). Bachstein says that in his day both old and young birds used to be taken by this means. The Frenchmen used to employ basket traps for the capture of this species, as well as to take Blackbirds and Thrushes. The "Solitaire Inventif" tells us that it was a common thing in many parts of France to see such a trap in use for taking Partridges. Some people called it a "Tomberau." Others dubbed it a "Mue," and others again termed it a "Trébuchet." He liked the third name best. The illustration (p. 42) shows its form. When used for taking Partridges it measured from thirty inches to three feet square at the base. This trap was often set in a vineyard or piece of natural cover. The fowler first chose some retired spot, which he baited with a train of oats. When he had accustomed the birds to return to the same spot to feed he set his trap carefully concealed by some bushes from the gaze of the curious public. The precaution was also needed to prevent the Partridges from being needlessly alarmed. Heather, or in autumn the stalks and leaves of vines, might be spread over the trap, the better to disguise its nature. It is only fair to interpret the remark that the "Solitaire Inventif" describes this and other methods of illegal fowling, in order that those who wish to prevent poaching may be able to look out for the dodges which they desire to detect. Some people think that such knowledge is dangerous. A little reflection would convince them that a man needs a regular apprenticeship to poaching to enable him to practise the wiles of the craft with success. An amateur is no more likely to succeed at poaching than at any other trade which requires special qualifications.

The employment of birdlime for taking Partridges sounds strange enough to the present generation of sportsmen, yet no shame was attached to this practice in the early years of the seventeenth century. Markham instructs his readers on this very topic. He lays down the axiom that the fowler should first provide himself with an adequate supply of wheaten straw, which he proceeds to cut to suitable lengths. The straws

so prepared are taken out into the fields. When the fowler finds a covey of Partridges he sets his lined rods across the ground which lies between the birds and his own hiding-place. He then begins to call the birds with a partridge-call. This induces the birds to run towards the chamber, with the fatal result that they are detained by the lined straws which he crosses their way. Markham does not give any description of the instrument to which he refers as a partridge-call. What variety of bird-call he may have had in his mind I am quite unable to decide. But it seems not impossible that the whistle or pipe to which he referred may have resembled one or other of the calls for Partridges which were used on the Continent. I refer more particularly to the small circular whistles of silver or pewter metal still in favour in Italy as a means for communicating the cues of wild birds to their respective mates. There is the alternative that the pattern of Markham's "Partridge-call" was identical with the old-fashioned partridge-call of the north of England. My attention was drawn to this contrivance by Mr Henry Dryden of Benwick a native of the Pennine Range. The call in question consists of a small disc of metal, about an inch in length and the same in diameter. A piece of parchment has been fitted to serve as a cap for the call, and is secured in its place by some waxed thread. The parchment has been pierced with a needle to admit of the insertion of half a dozen horsehairs, which are knotted, so that they cannot be displaced. Dryden obtained this bird-call from a native of East Cumberland, who had himself shot many Partridges with its agency. He stated that the practice of obtaining birds in this manner was frequently employed in his youth. The fowler imitated the call note of the bird by drawing the horsehairs across a piece of resin, modifying the speed of the operation to the note of the bird which he was trying to decoy within shot. This ruse was found to be most successful in September, but not until the coveys of birds had been shot over and broken up, or, as Cumberians would prefer to say, the birds had become "squandered." It would appear that we owe the presence of this Partridge-call in Cumberland to some Scandinavian settler of the old days. On referring to Lloyd's *Game-Birds of Norway and Sweden*, I find the very same call figured as the "Rapphöns Pipa" (p. 165). In modern Sweden the tube of the call is said to be made by a tailor's thimble, but in all other respects the call is identically the same as that which Dryden brought to me from his native village as an old-fashioned accessory of

foawling. I incline to believe that the arrival of the foawling-piece caused lining Partridges to pass out of fashion long before certain other devices of the fowler ceased to be practised in England. But there is clear and substantial proof that birdlime was used for taking Partridges on the Continent at the beginning of our own era.

The *Quarterly Journal* of March 1st 1802, relates the fate of one Del Cillas, a shoemaker by trade, who presumed to catch Partridges on the lands of the royal parks near Lisbon. The scheme devised by this rascal was not novel in principle. He made use of a trap, which was then often prepared for Rooks and Crows by lining the interior of a paper cone with birdlime. Del Cillas had the common sense to adapt this use to his own evil ends. He showed his originality, if he had any, in the fact that he lined the papers with vetches which he knew to be regarded by Partridges as delicate eating. The miscreant distributed his traps in the haunts of the birds. The Partridges seem to have lent themselves to this nefarious project. They inserted their heads into the prepared recess of paper, and so lost their liberty. But the artful fowler was himself overtaken by justice. He was convicted of his crime and sent to the galleys. The birds which he caught were doubtless Red-legged Partridges.

At the present day the natives of India are adepts at driving Quail and Francolins into a bag-net, which has on board on either side for some little distance by a wall of low netting on each side. The principle involved is thus identical with the mechanical plan for driving Partridges into the net known in France as "la Tonnelle." I have failed to obtain *historical* proof that the conical net in question was ever employed in England. Very possibly it may have been. But if it ever was fashionable in this island, it was had apparently passed out of recollection when Ray edited the English edition of Willughby's *Ornithology*. This is evidenced by the seriousness with which Ray alludes to the use of the Tunnelling-net in Italian sport. It seems certain that he copied his information on this engine direct from Olina, who had appropriated the account of this pastime published by Di Valli a few years earlier. After Willughby had popularised Olina's hints on foawling in this country, Nicolas Cox and other book-makers sought to engraft the sport of "la Tonnelle" on to British foawling. They appear to have failed probably because our native sportsmen preferred to exercise the accomplishment of driving Partridges after the fashion of their Saxon forefathers. In

England the custom was to utilize a ground-net, placed in a slanting position above the grass. It was raised sufficiently high to permit a covey of birds to run beneath its toils. The net was dyed green, and was concealed from view by herbage or bushes. The fowler first marked a covey down in some convenient field. He then provided himself with the ancient familiar to us as a "stalking-horse." This was a screen of wood or canvas, painted to resemble a cow, a horse, or even a stag. The fowler approached the birds behind this dummy, and endeavoured to drive the Partridges down wind so that they might eventually run into the net.

The operation must have required considerable skill. Therein its interest no doubt lay. The Tunnelling-net may or may not have found adherents among English gentlemen, but as to its popularity abroad there is ample evidence. The Italians used this net in the neighbourhood of Rome under the title of "Batria" or "Cuculo." In Germany it became known as the "Kegelnetz" or "Gannack." In Sweden it is still recognized as the "Rysja." The original woodcut produced by Tempesta for Di Valli, and subsequently circulated in the two editions of Olm's work, is defective in one respect. The artist has unluckily conveyed the impression that the Tunnel-net was intended to stand some six or seven feet from the ground at the entrance of the "pipe" or tunnel. Tempesta appears to have misinterpreted the meaning of the letterpress. The truth is that "la Tonnelle" was quite a low engine intended to be hidden altogether in the corn or grass in which it was pegged out. Di Valli does not go into much detail as to the measurement of the "Batria," which he compares to a fish-basket ("Nassa") in shape. He adds that the side-wings which led the birds up to the net measured about six paces in length and three paces in height, so that when once the game had entered escape became impossible. The fullest particulars of how to manufacture "la Tonnelle" are supplied in the *Reas Innocentes*. According to this authority, the Tunnel-net proper measured about fifteen feet in length, and stood about nineteen inches high at the entrance to the Pipe or Tunnel. The net was knitted of green or yellow twine, and was made in a conical form, tapering off towards the extremity. The net was mounted upon wooden hoops, which passed through the meshes. The wings or side-nets consisted of two of the low staked nets known as "Halliers." Each of these stood at least a foot high, and extended, when

pegged out, a distance of from forty-two to forty-eight feet. Bichon describes the Pipe or Tunnel-net used in Germany as having a length of sixteen or twenty feet. The opening of the Tunnel varies from thirty inches to three feet in the German pattern. Bichon offers a hint that if the side nets are absent their place can be supplied by two hedges of stakes, but these must be so closely set on either side that no Partridge can creep through.

Lepel informs us that the "Ryegje," as the Tunnel-net is called in Sweden, generally measures about twenty-four feet, while the diameter at the entrance of the Tunnel is only fourteen inches. The flank nets stand sixteen inches high, and each measures sixty-two feet. Selivanovskis account of the manufacture of the Tunnel-net used in Russia is minute, but desory. It does not throw further light upon the subject. Di Valli was only accustomed to see Partridges driven into this engine by means of a fowler, who carried a screen and covered his head, if necessary, with green boughs. In France the peasants who used this engine by stealth used to commence operations at the break of day without the assistance of a dog. Men of good family followed the amusement openly, with the addition of both a dog and an artificial stalking horse or cone. The dog was held by a long cord. When it found the game the screen came into play to enable the fowler to work the birds towards the net. The best situation in which to set the Tunnel net was a field of green corn. Other positions were adopted as convenience suggested. The Germans preferred to set the net in long grass, or in a hedge-row. Several men joined together to drive the birds, proceeding with great caution lest the game they coveted should take flight, and wing their way to another field. In Sweden it is, or was, customary for sportsmen to make use of a living house as a screen behind which to approach a covey of birds. A pointer is employed to find a covey of birds, but takes no part in the proceedings which follow. The fowler pegs out his net, and then advances towards the unsuspecting birds. The latter see only the form of a house and dog approaching them, and therefore retreat by running along the ground. Such is a brief summary of the use of Tunnel-nets for taking Partridges or Quails. I question whether this engine ever enjoyed as wide favour on the Continent as the "Trasse." The latter was deemed worthy of royalty. In course of time it lost some of its prestige; indeed, it was ordered to be discontinued in France in the year

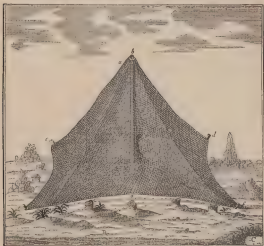
1600, though the Parliament of Toulouse reserved the rights of the landed classes to the enjoyment of "la chasse à la timée et aux chiens couchant dans son ressort." Louis XIV. used to look on while his courtiers practised the sport of casting the "Tirasse" over both Partridges and Pheasants, in the presence of the grandes dames who were admitted to the royal parks. The net or engine known as the "Tirasse" seems to have preserved the same shape in different countries. In form, it seems to have been a square net, made of either lozenge-shaped or square meshes, of a beam-column, and varied in size according to the intentions of the fowler. The Italians of Olina's day knew it as the "Equisotto" or "Strascino." Such a net was meant to be carried by two fowlers. These men carried the net over their shoulders, and drew it over the dog and away when the exciting moment arrived. Sometimes one of the sportsmen mounted a nag, in which case the net was longer than when borne by two men on foot.

One of the essential points in taking birds with a dog and net was that the dog should be purged for the occasion. This net was used in the same way in Germany as in France and Italy, the dog being of the breed known as a "Vorsteherhund" instead of a "Brioso da rete" or "Can da ferro," or what was known in France as "un chien couchant." Willughby refers to the capture of Partridges in England by means of a Drawnet as a fact of every day experience. The use of the "Tirasse" had evidently become familiar to some of our countrymen abroad, unless, indeed, the idea had independently occurred to British sportsmen. The dog trained for this purpose in England was "a lusty Land-Spaniel." Willughby remarks that a single man might draw a net over birds, but only after first securing one end to the ground. Italians found the same precaution necessary. The partiality which this Partridge evinces for hunting in the company of its own kind has afforded an opportunity to poachers of several nationalities. The Germans regarded this net as an addition to their national industries, for which they were indebted to their neighbours across the Rhine. However this may be, the details of netting or 'jugging' Partridges have been described in the fullest possible detail by historians of both nationalities. The net employed for this purpose is that termed a "Tirasso" in France, but a Drag-net in England. The "Solitaire" tells us that the net used to take Partridges by the peasants requires to be made with a lozenge mesh, and should not

extend eighteen feet in depth. An alternative plan is to use a smaller net of triangular form which a single man can wield without help from any confederates. In either case the bird hunter first ascertains the whereabouts of his game and then proceeds to sweep the field. Some of the French peasants used to illuminate their proceedings by carrying a tin lantern in a wooden bushel-measure, tied round the waist.

Although the Germans adopted the use of both the drag-net and the 'Thrace' they have a marked preference for two national engines, the 'Hedgum' and the 'Bell-net' or 'Glockengum.' The former consists of a line of stake-nets often fixed at a height of from nine to twelve feet from the ground. When the sport of driving these birds is conducted on a moonlight evening or if the birds have been much harried, the nets have to be raised to a greater elevation. Partridges are chiefly taken in these nets in the gloaming or in the dim light of breaking day. Lloyd alludes to the occasional adoption of this engine in Sweden where it is termed the 'Hag-net' or 'Hag-net.' It there extends from thirty to forty fathoms in length, and to as much as thirty feet in depth. At early morn and late in the afternoon, Partridges, when going to or returning from their roosting-places, always fly low, often hardly at the height of a man, and they moreover almost invariably take the same course. This point ascertained, the net is set upon two poles of about twenty feet in height, the upper line being fastened at some eighteen feet from the ground and the under line at four feet so that the lower portion of the net forms a sort of bag. Two men keep watch near the net, whilst others with dogs hunt the surrounding country, so that when the Partridges are flushed and take their usual course, they fly against the net and fall into the bag mentioned. The watchers at the same instant wrench up the poles supporting the net and throw them to the ground on the top of the latter, which renders the escape of the birds almost impossible" (*Game-birds of Sweden and Norway*, p. 171). The 'Glockengum' or Bell-net is a square sheet, knitted of coarse twine, having three-inch meshes, except near the borders, which are made of finer string. The net must be of such a size that when the four corners are fastened to the ground and the centre of the net is lifted up, the distance from the apex of the net measures about six feet. When thus erected, the net resembles a bell or, as the Russians say, a foot in outline. A round hole is cut in the centre of the net, to admit of the insertion of

a brass or iron ring of three inches diameter. The net is first pegged down to the earth by hooks attached to the four corners. The body of the net is then raised upon the support of a three-inch pole of oak or elm. This pole is driven firmly into the ground in the middle of the space intended to be occupied by the net. The net is then lifted up, and



THE BELL-NET.

the metal ring is laid on the rounded top of the pole. A string is then tied to the ring of such a length that the other end, to which a bundle of corn is attached just reaches the ground. The net is sufficiently stretched, by being thus suspended on the pole, to allow of Partridges to enter. When a covey has crept under the net to feed, the first bird that

pulls at the bunch of corn disarranges the equilibrium of the *stey*. This slides off the smooth top of the pole and falls to the ground, covering the birds beneath its fold. This trap is intended to be made use of in winter when snow is lying on the ground. The birds are fed on the spot in which it is proposed to set the 'Glockengrün' in late autumn. When their natural supply of food grows scanty, they eagerly resort to their accustomed feeding-place. Another German contrivance is the 'Schneehaube' or 'Snowcap,' a square net pegged out in the shape of a kerchief. This appears to be smaller in principle if not in detail, to the square arrangement of a net recommended by the 'Solitaire Inventif' (*How to Hunt and Trap in Chap. vi*) for capturing Partridges in some places in which the birds have been fed. This consists of a net, which is propped up by twelve stakes, which are connected together by cords. A long line is connected with the cords in question, by which the fowler can pull the net into the form of a cap, when he sees that the birds are underneath. Yet another device for catching live Partridges is that known to the Germans as the 'Befallhakensteig.' This is a large square trap-cage provided with spring doors. The birds are inveigled into entering this engine by a trail of food. When the trap is first set the doors are purposely kept open. As soon as the birds have learnt to wander in and out of the trap without fear, the doors are released and adjusted so as to close upon any birds which venture in.

The last method of netting Partridges that will be noticed here is the old French plan of capturing cock birds by means of a female decoy. The 'Solitaire Inventif' shares the belief of many other sportsmen that there is a redundant population of male Partridges, and that the breeding stock is improved by the capture of the surplus males. Accordingly he advocates the employment of a caged hen, which is placed in a green cage and set in a field of corn, between a lodge and one of the nets known as 'Halliers.' The decoy is termed 'une chanteuse,' and, if very tame, is sometimes allowed to run over the ground inside the fence of the Halliers. This method of feeding is intended to be employed only between sunset and the arrival of night and at the break of day.

[The headpiece of this chapter has been reproduced from the engraving used by Goussier; the plate, as in other instances, being of finer finish than De Vaulx's original engraving.]



CHAPTER XXXVII. QUAIL-CATCHING IN ITALY.

THE QUAIL (*Colinus cinnamomeus*) is familiar to most Englishmen as an irregular visitor to our home stubbles. On the Continent, and particularly in the south of Europe, this game bird occupies the first place in the minds of sportsmen of all ranks of society. The vast flocks of Quail which annually return to Europe in the spring of the year appear to make their way across the Mediterranean by different routes. The left wing crosses the straits of Gibraltar during the months of March and April. The right wing crosses the Ægean, and arrives on the shores of Turkey and the Black Sea. The main phalanx steers a course for the coasts and islands of Italy. Many of these birds direct their flight to the southern coasts of France, whence they endeavour to push detached companies up the valley of the Rhone, intending to take possession of the wide and sunny lands which stretch away for miles between the pine-clad hills of the Black Forest and the long, poplar-bordered reaches of the majestic Rhine. But the full swell of the wandering tide of wanderers from Northern Africa expends its force upon the island of Capri and other parts of the kingdom of Italy. Indeed, the island upon which Tiberius spent his last years in luxurious delinquency is no less famous for the myriads of Quail which strike upon its shores alike in the spring and fall of the year, than for the scenic loveliness which attracts the Continental traveller to cross the Bay of Naples in order to make himself acquainted with beauties upon which he is sure to expatiate long after his return home. Dr Cav. Ignazio Cerio has most kindly sent me an interesting description of the Quail-catching at Capri, through the courtesy of our mutual friend Professor Giglioli. We learn from this

report that the Quail-catching at Capri commences on the 11th of April, and is continued until the end of June. The autumnal campaign against these birds opens towards the end of August, and is continued until the end of October. The largest numbers of Quail are taken upon Capri between the last days of April and the 16th of May. The 21st day of April is reckoned by the fowlers to be an exceptionally good day, provided that a Levante or east wind is blowing. In springtime the fowling is carried out in the neighbourhood of the sea, and the nets are fixed upon the rocks and perpendicular cliffs a few metres above sea level. The peasants apply the names of "Caniti" and "Schiappati" to the engines by which their harvest of birds is gathered in. These nets are made of very fine and strong string, dyed a grey colour, and they are set in spring on the south and east of the island. Each net measures from eight to ten metres in length and depth. The meshes are two and a half centimetres across. The nets have to be suspended between long poles, which are planted in the ground. The supports require to be so securely fixed that the wind cannot blow them down. The nets are attached to the posts at both ends by means of cords fastened to rings of iron or lead, so that the fowlers can lower their tails at the hour of the day when the passage of birds ceases, or when a strong wind threatens to blow them down. The nets have to be set on level ground, as far as circumstances permit. There is a distance of sixty centimetres between the "Caniti" or folds, which traverse the entire length of each net in the style of bags. When the Quail strike the meshes of the nets, they flutter down into the "Caniti," and so remain unrolling prisoners. A set of nets is called "Pante," and consists of four, eight, or a greater number of "Schiappati," arranged close to one another, all facing seaward, and set so placed as to shut out all way of escape for the Quail, which fly low in spring. The fowling commences at each station with the first flush of dawn and lasts until about 8 a.m., after which time birds are rarely caught. Many Quail dash themselves against the rocks of the island, and drop dead or moribund into the sea. The Falcons and Gulls contend with the fowler for a share of the spoil, and account for many victims. The autumn fowling differs from that of spring in the height at which the nets are set, for the birds fly at a different elevation in their return passage to the African coasts. In autumn the fowlers make use of decoy-birds, called "Richiami." These are male Quail, which have been

brilliantly blunder with red-hot irons. These call-birds are employed to lure the flocks of migrating Quail into the nets. The number of Quail annually taken upon Capri amounts to about 56,000 birds. These are disposed of to dealers, who place them in chests and cloth-covered baskets. They are sent first to Naples, whence they are again exported, chiefly to France. It should be observed that the number of Quail taken in Capri during the vernal passage of these birds varies according to the prevailing winds. If a Levante blows in the early morning and in the evening of a spring day, the fowlers expect that a great number of Quail will make their appearance on the following day. In autumn the most favourable wind for the fowlers is the *Mistrale*. It is useless to look for an arrival of Quail when the *Sirocco* is blowing. Old fowlers assert that the numbers of the Quail which visit Capri have decreased during the last twenty years. They account for the difference in the supply of birds by suggesting that the "*Schiappari*" have been introduced to the African coast by Italian emigrants. Another engine by which many Quail are obtained upon Capri is the net known as the "*Ventaglio*." This is a flat, triangular net five or six metres in depth. It is supported laterally by two long poles. The fowler employs this hand-net upon the edges of the precipices and in other parts of the island. He holds his net in his hand, pressed against the chest. The fowler uses the "*Ventaglio*" with a sporting dog. The dog flushes the bird, which is then adroitly netted by the fowler. This method yields satisfactory results when Quail are plentiful. The netters cannot take any birds if shooting is going on. In former days the Bishop of Capri exacted a tithe of the Quail taken on Capri. My friend the Rev. E. A. Fuller informs me that he has seen great quantities of Quail taken on the shores of the Bay of Naples in high nets. On the other hand, the late Mr. Walter Campbell describes the nets which he found in use on the Italian coast as measuring "about a yard deep, but of great length; the bottom of this is pegged to the sand, close to the edge of the sea; the top is hung on small notches cut in sticks, about two feet and a-half long which are stuck upright about a foot before the net, and about three yards apart. When the net is set, it is thus made to stand up, being suspended on those stakes, but as the upper part rests only on the notches, a very slight blow knocks it off, and then it falls on the sand, covering with its meshes whatever chances to strike it. I remember

once lying on benches among some sea-mure, watching one of these sunnies, at every moment I saw the little jacks, and then a portion of the net fall, but I never could distinguish the birds they flew so fast and so close to the water. I never perceived one till I followed the proprietor and saw him put his hand under the net at every place where it had fallen, lift up a quail and deposit it in a large hollow gourd, that he carried instead of a basket, and then hang the net again on the notch in the stick. The net of which I speak was more than half a mile long, and the owner spent the whole day in walking gently from one end of it to the other, and as he reached each end he emptied his gourd into a number of long narrow boxes with canvas tops and fronts which were ranged in readiness. All the boxes were provided with sand and water-troughs and the Piedrese told me that if the canvas front was shut down, so as to prevent the birds from looking about, they were such bold little fellows, that they would eat and drink freely ten minutes after they were taken" (*Life in Normandy*, Vol. 1. p. 78).

Great numbers of Quail visit Sicily in the spring of the year. According to Signore Goria the Quail arrive at Palermo about the 10th of April, but their passage is interrupted during the closing days of April and the first ten or twelve days of May according to the weather. The winds favourable to the passage vary in different localities, but the most favourable, according to Goria, are the Maestrale, the Sirocco, the Libani or south-west wind, and the Grecale or northeast wind. The most unfavourable wind at Palermo is the Ponente or west wind. After a very fine night the birds are found in the greatest numbers on the mountains; on the other hand if it is windy, and especially if the Sirocco is blowing the Quail are to be met with in the greatest plenty upon the plain and in the vicinity of the sea. Palermo is partly surrounded by an amphitheatre of mountain known as the *Monte d'Oro*, or Golden Shell. This affords the best ground for Quail.

Tanara remarks that Aristotle agrees with other writers in declaring that the Quail performs its migration with the north wind, as that gives support to its body. He then gives his own experience. "I have seen them," he says, "arrive with side-winds such as the Levante and Ponente, and when they have been taken in quantities it was the Levante which brought them; the fowlers of the coast say that the birds will not fly with the wind behind them, because it disarranges their feathers. What

astonishes me is their advent to Italy, and that they arrive on one and the same day on all the coasts which face south, as all along the shores of the Romagna and Calabria; others arrive on the coasts which have a northerly aspect, such as Romagna, Ancona, and Maree; others upon the coast which faces east, such as Taranto and Otranto; so that one may say that the Quail visit Italy with every wind, and from every quarter."

Blondinus, quoted by Aldrovandus, states that Swallows and Quail simultaneously return across the Mediterranean to Italy in the beginning of spring when the natives of Neptunum cover the shores of Antium with nets for 50000 paces. Each man stays on his own farm, and having hired a suitable place for fixing his nets, he catches the Quail when they come at night with a Quail-call. If any tired bird falls on the ground outside the nets the birdcatcher picks it up in his hands. The fowling season lasts one month. Aldrovandus likewise cites the experience of Franciscus Arrivabene, who writes that the party to which he belonged had hardly left Astura before they fell in with the Quail-catching. The nets covered a space of 4000 paces and an enormous quantity of birds were taken. The fowlers reported that the Quail crossed to Italy from Barbary, and that they crossed the sea in a single flight, leaving Barbary in the evening and landing in Italy on the morning following. In support of this view, the fowlers affirmed that they had taken the seeds of the birds called *basil* out of the crops of the Quail on their arrival, and sown them in the ground, where they germinated and flourished. The local magistrate was asked how many birds had been taken that morning, and replied that more than a thousand had been netted. This estimate was confirmed on the following day, when a much larger number were secured. The fowlers sold the birds to Roman patricians, who came in quest of supplies to Neptunum. Many of the Quail which visit Italy are mere migrants, travelling to or from the centre of Europe. But a large percentage endeavour to spend the summer among the millet-fields and vineyards of the south.

Tamio who wrote between 1622 and the middle of that century, considered that the indiscriminate capture of Quail by his countrymen in the spring of the year was calculated to injure the interests of sportsmen. He pointed out this view of the case to the fowlers, but met with no sympathy. They answered his complaint by pointing out that they only captured male Quail, adding that, as one male would suffice to pan with

a dozen females of the same species the latter were perfectly able to keep the country replenished with Quail. Tamara was acquainted with the system of Quail-fowling in vogue at Ancona and in the district of Nettuno. Birds of both sexes were taken in the passage-nets. But the sport to which he had referred in his protest against spring-fowling, was apparently identical with the system which he explains, of a fowler surrounding himself with walls of netting and then challenging any male Quail which happened to be in the vicinity. In this case the fowler selects as the scene of his operations a small piece of level ground surrounded by a ditch, which is three feet broad and two feet deep. The nets are eight feet deep and are extended between high poles, like those used on Cyprus. The nets are allowed to belly out, so as to form three long bags like the *Canah* of the Cyprus nets. The ground which is not occupied by the walls of net is devoted to a layer of water-mushes, which is held in the centre with a long pole. The high net serves to intercept the flight of those Quail which come up to the nets flying at a greater elevation than the walls of net which surround the fowler. The birds which only run along the ground become entangled in the lowest band of the stake-nets, and fall with the nets into the ditch. The fowler carries on this species of sport only at night, since says Tamara Quail do not flight during daylight. Nevertheless, the fowler is described as surrounding himself in a small hole which he has dug in the centre of the fowling-ground while he lures the birds within reach of his tools. Female birds were often employed to supplement the artificial call of the bird-catcher. Such a bird sometimes fetched the price of a horse, since females that called persistently were hard to meet with. Tamara thought that Quail-catching ought to be confined to the autumn, after the old birds had reared their young ones. Here in Quail-catching is now permitted in *sporce* in any part of Italy except Cyprus I am unable to say, but the penalties for poaching vary in different provinces. When Quail are found to have been caught unlawfully the birds are forfeited. We read for example in *Lo Spettatore* of May 14th 1895 that on the 25th of that month the Milanese authorities had made a seizure of 2000 Quail, which had been caught illegally. The birds were sent to the convalescent patients of a local hospital. Olina tells us that in his day the birds were frequently taken on their first arrival inland with somewhat similar nets to those which Tamara has described. Neither Olina nor Di Vall suggest

that the fowler should dig a trench around his nets, or conceal his person in the middle of his fowling-ground. The net described by these last authorities consisted of a green net, of the kind known as the "Ragna." Four such nets were stretched between posts, forming a square wall of netting around the eagle decoys, which were hung on a pole in the middle of the net. This method received the name of "Tramaglia," though I am not certain that the term was always restricted to this particular form of fowling.

Savi informs us that the engine which the Tuscan peasants used for catching newly arrived Quail in his day, *i.e.*, only in our own century, was a triple net made like a "Ragna." It was called the "Pantella." It was a low net, only measuring a few inches in height, though ten or eleven feet in length. The meshes were triple, the inner wall of the net being fine, while on either side the large meshes of the outer nets formed a supporting band. I believe this net to have resembled a long, narrow net made of fine thread dyed green, which was sold to me for Quail-catching at Milan. It is mounted on a series of short wooden stakes, and can be rolled into a very small compass. The way of using the "Pantella" was the following:—The fowler, having provided himself with a Quail-call walked out into the open country shortly before sunrise and imitated the call of the female Quail with his pipe. When he had thus ascertained the spot in which a male Quail had found shelter he fixed his net in the ground, in such a way that the lower end of the net touched the earth. He then retired twelve or fifteen paces from the net on the side furthest from the bird, and commenced to call like a female Quail. The male being full of amatory passion, would run over the field, searching for the imaginary belle. Disregarding the meshes of the green and, therefore, invisible net, he became entangled in the tools extended to effect his capture. The sport of Quail-catching was formerly practised by princes and noblemen. One favourite form of their amusements was the so-called Tunnelling for Quail.

Di Vail tells us that the fowler who proposed to catch Quail in the "Batria," or Tunnel-net, selected fifteen or sixteen live Quail, which he kept in captivity. In the month of April these birds were placed in a room or chase, in which they could be forced to moult prematurely. The process of keeping these birds under a system of forcing was termed "la Chiama alle Quaglie." At the beginning of August the birds were

taken out of their ferring-house, when, having completed their moult, they were in the condition for being used as call-birds. The fowler then picked out a suitable spot upon which the *Butrio* could be crouched. A patch of standing Indian corn or millet answered his purpose provided the ground was even. More frequently the net was pitched on a scabble of fair height. The *Butrio* was arranged in such a way as to be concealed by the grass and branches heaped over the hooped netting. The net was arranged as far as possible to be attractive to the Quail, *per far intenti in mano delle Quaglie*—as the old adage ran. The nets were dyed green and were set up three or four hours before day. "If there be moonlight," says Di Valli, "one can feed all night but it is usual to do so in the morning, and above all the place where the fowling is must be level and plentifully strewn with millet and you can drive them as the illustration shows with a bunch of bells run *mazzo di scaccheti*, which a man jingles from hand to hand as he advances towards the *Butrio*." Another title for the *Butrio* was *Quale*. The call-birds were hung one above another from posts as shown in his engraving. The perpendicular nets or wings ("Ale") staked on each side of the *Butrio* to guide the birds into the Tunnels, stood three feet high and were six feet long. Di Valli means to state the height of the *Butrio*, while Olmi does little more than adopt Di Valli's statement as his own. He shows more independence in his remarks upon "*Della Carta col buco*"—in other words, the use of diagrams for taking Quail in the daytime. The great square net employed for this sport was termed '*Caputo*' or '*Eparato*' by some. Others preferred to know it as the '*Strascino*' or, if it was more extended than usual, the '*Strascino maggiore*' or '*Strascinone*." The '*Strascino*' could be carried by two men, who bore it by means of ropes attached to the two upper corners. The '*Strascino Maggiore*' was carried by mounted men, who supported the cords of the net upon the bows of their saddles. Alberti explains how the Indian sportsman of the seventeenth century named his dog for the special purpose of pointing Quail. The animal was first allowed to run after a couple of Quail which had had their wings clipped, so that they could only run along the ground. After this preliminary, the dog was taken into a field with a rope termed the '*lungagna*,' tied to his neck. If he tried to chase any Larks or other small birds, he was punished. "The next step," says our author, "is to

take the dog into the fields when the weather is hot, holding the cord ('Lungagna') in your hand, and when you meet with any Quail in the field, he will point, holding his tail stiff. Then the fowler plants the hook [attached to the end] of the 'Lungagna' in the ground, and covers the dog and birds with the net; if the dog wishes to seize a Quail he may be allowed to do so once, but if he wishes to repeat such conduct he must be beaten, so that he may drop this bad habit."

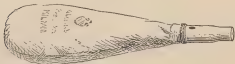
The hook attached to the "Lungagna" or leash was intended to prevent the dog from meddling the game when covered with the net. The fowlers used to carry Quail-calls, by which they were able to locate the birds with some degree of certainty. Mosani remarks that the sportsman should make a point of rewarding his dog when he finds Quail, by giving him a bit of cheese or some other tit-bit. Count Ettore Arrigone Degli Oddi informs me that the chief form of Quail-netting at present practised in the province of Padua is that known as "*La caccia alla stanga*," vulgarly termed "*Quinara*." It consists of a long pole, which is planted in the middle of a field of growing millet; this pole is crowned with a hoop ('*Cerchio*'), which is held in its position by a cord. A number of cages containing male Quail are suspended from the hoops. These caged Quail attract the attention of any wild birds of their own kind that happen to pass over. When the dawn arrives the fowlers appear at the other end of the ground and proceed to drive the birds into the net which they have fixed in the shape of a funnel ("*una rete ad imbuto*") at the end of the field. This kind of fowling is followed in August and September. Savi supplies a similar account of the form of "*Quaglienja*" pursued in Tuscany at the end of August. He says that the piece of land devoted to this amusement should be triangular in form. The cage of the call-bird (he does not speak of more than one being employed) is made in the form of an inverted cone, and is covered with cloth. It is attached to a high post planted in the middle of the fowling-ground, and can be elevated or lowered by means of a pulley fixed on the summit of the pole.

The call-bird begins to reiterate his well-known challenge towards sundown, and continues to call at intervals during the night. Any Quail which chance to be in the vicinity, or to be crossing that part of the country, are attracted to the field from which the voice of their fellow issues. Naturally, they check their flight to rest in the millet. When

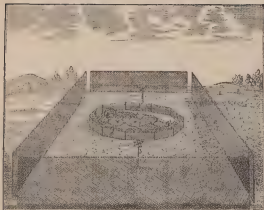
day arrives and the Quail are hiding in the cover, the fowler returns to the Quail-ground and advances gently up to the decoy, ringing some little bells or other instruments. On arriving at the millet he strikes the sides of the enclosure with a mallet, and drives the Quail towards the 'Puntella' or staked net which is set in triangular form at the narrow end of the crop of millet. This essay on Italian Quail-catching may fitly conclude with a brief extract from the Archduke Louis Salvador's work on the *Lepus Iles*. "For catching Quail in Stromboli, low nets, so-called 'Speria,' are drawn along the lower edge of the vineyards and of the hedges of planted woods. The people put up the birds with the call 'Monachella coo' co, pasarella monachella co' co' co,' and by clapping their hands until the Quail entangle themselves in the nets, and remain held fast by the neck in the lower part of them. This takes place during the month of September" (Vol. viii. p. 119).

The mechanical Quail-calls used in different parts of Italy vary in construction. The Quail-call here figured is that used in the north of Italy. It consists of a small bag of leather, closed with a metal stopper. When the fowler strikes a smart blow upon the leather with the edge of his hand, the sound produced closely resembles the challenge of the male Quail.

[The headpiece of this chapter is based upon photographs of the Quail-nets used in Creta. The negatives were specially taken for the use of this work, through the kindness of Professor Giglioli and Dr Cerio.]



ITALIAN QUAIL-CALL.

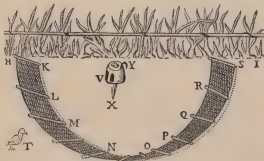


CHAPTER XXXVIII -QUAIL-CATCHING IN EUROPE.

THE country around Marseilles has been famous since the days of antiquity for the enthusiasm with which "la chasse aux Quilles" is carried on by the inhabitants. Indeed, the territory nearest to the sea was long reserved for this sport, no doubt because Quail were found to be more numerous there than further inland. The most famous "Quillères" or Quail-grounds were those of Clary, Julien, Monagnet, and a few others. Joubert and Barthélemy-Lapommeraye state that in our own time the ancestral haunts of the migrating Quail have undergone numberless changes. "The vast estates have been cut up, the aspect of the country is effaced by boundary walls, the country has entirely changed. However, if on a fine calm night a belated pedestrian happens to walk along the parish road, which is bordered at certain points by the wet beach, he can hear, reverberated by the echo of the mountain, skirted

with a belt of pipes, the measured chant, rolling and monotonous, of hundreds of blind Quail. The cries of these nocturnal call-birds must come from the "Challière Pastre" one of the most considerable and best situated of these establishments belonging to one of the large properties already mentioned as existing in this quarter. Let us say in a few words how the fowling is carried on. The "Challière" is located on a large steppe, covered with thyme and rosemary, heath, and the Kermes Oak (*Quercus coccinea*), which trails its stunted branches over the ground, one set grouped here and there, and some distance apart, posts of from four to five metres, carefully trimmed. To these are heaved the cages,—five or six upon each, bundles of prickly furze are nailed under the cages to repel marauding cats and other noxious animals. The Quails have called gently during part of the night but their ardour becomes reanimated towards the hours of daylight. The light ascent, *to, to* of a young female serves to inflame the caged males excited by those mysterious notes which appeal straight to their hearts. At sunrise the sportsmen prepare for the first battue, already a number of birds have been marshed in the nets during the night. The hunters now proceed to raise the birds and to drive them with shouts in the direction of the nets—the booty is now considerable, the aviaries are full of birds. Of the mass of Quail thus captured, a select number of the strongest males are set on one side to be trained as decoys, the females are doomed to death. When the netting is over the sportsmen begin to shoot (*Richesses Oise*, p. 425). It should be remarked that the decoy Quail are all males, and are known as "Appelants." The task of depriving these unfortunate birds of their sight is undertaken by a class of experts called "Aveugleurs." Various plans have been practised for netting Quail in the interior of France. Belon tells us that in the sixteenth century the fowlers used small instruments made of bone and leather, called "Conceilllets," with which they became proficient at calling Quail into their nets in the pairing time. The "Solitaire Inventif" devotes a chapter to the means of taking the Quail with the net known as a "Hallier." The "Hallier," sometimes called the "Tramail," is a pattern of long, low net used for taking various birds when running upon the ground. That used for Quail was generally made of pale green silk, so that it could not easily be distinguished from the tender blades of corn in which it frequently was set. The "Hallier" closely resembled the Italian "Paratella," being made of three parallel

strips of netting, two large meshed nets enclosing a finer central net, termed the "Toile." This net measured ten or eleven feet long, and varied from eight to ten or twelve inches in depth. It was mounted upon a series of short stakes, fourteen or fifteen inches or even two feet in height, which were tied to the net at a distance of about two feet apart. The "Piquets" or stakes which supported the "Hullier" were sharpened at the lower end to admit of their being easily planted in the ground. The "Hullier" came into use in the month of April, when the low-notes of the "Caille vaine" or newly arrived Quail enlivened the fields of springing corn. It continued in use until the end of summer,



HULLIER AND DECOY QUAIL (after *Revue Française*).

when the cooing system of the male Quail had cooled down. Only male Quail were taken by this engine, because the supposed cry of the female Quail was the instrument by which the birds were enticed into the nets. The fowler carried on this sport at sunrise, at 9 a.m., at noon, at 3 p.m., and again at sunset. He walked through the fields at these times with a Quail-call in his hand. If a wild Quail uttered its trisyllabic cry, the fowler answered its challenge by reproducing the cry of the hen bird. Should the wild, free bird be a male, and its affections chanced to be

disengaged, it was sure to run, or even fly, towards the quarter from which it supposed the fowler's call to emanate. Accordingly, if the fowler found his challenge accepted by the bird he desired to take, he proceeded to peg out his net, fixing the pegs into the ground, so that the folds of the net hung loosely. The fowler then retired ten or fifteen paces from the net and recommenced to call, lying down upon the ground so as to be out of view. The moment that the Quail responded to the fowler, the latter answered with a low, slight call. Sometimes the ardour of an unpaired bird would induce it to fly over the net, in which case the bird landed close to the fowler. In such an eventuality the man had to slip quietly back to the other side of the net, whence he commenced to call the Quail afresh. The bird then started afresh in search of the coy mate, whose affection it desired to appropriate, and very soon found its way lured by the "Haller," in which it became entangled. The inner net of the "Haller" was usually oval, the meshes of the outer nets being square. The fowler did not tremble soon as a Quail had become meshed in his toils, because he was well aware that there might be several more unpaired male Quail in the same field which could be taken in the same fashion as the first. Quail do not care to run through the corn or grass if a heavy dew or rain has wetted the herbage.

Kress remarks, "one can never use too early for Quail-catching; but the birds are more difficult to take when there is dew; this is why fowlers prefer to take them between 5 and 10 in the morning and from 3 in the afternoon until night." The French fowlers have always exhibited a high regard for female decoys, when these could be used in the fields. They give many instructions as to how the female decoy should be treated, and the cages in which "*la Chanterelle*" could be crribled. Kress maintains that the female decoy should be reared from the nest, and accustomed to be handled. He even adds that if the female is placed in the usual circular cage of wood, covered with cloth, and set out in the middle of a field with a "Haller" extended around the cage of the "*Chanterelle*," some males will be caught without any expenditure of trouble. A damp and close time before a storm favours Quail-catching. Nothing is more unpropitious to inland Quail-catching than windy weather. The fowler who aspires to net Quail in the "Haller" requires to beware of "*Vallées manquées*," or spent birds.

Some individuals answer the fowler, but do not approach near his toils. These are "Cailles futures" or rogues. The Frenchmen excelled in taking Quail with the "Trousse" or drag-net. The "Solitaire Inventif" says that one man should carry the net on his shoulders, in readiness to throw it when required. When the fowlers arrive at their trysting-place, they make their dog hunt down wind. Should the dog point a bevy of Quail, the fowlers extend the net between them, each man taking the cord attached to one of the upper corners. They thus advance to the dog, and cover dog and birds with the voluminous folds of the net. If the birds still skulk in the grass, the fowlers throw their caps on the net to make the birds rise. The same authority tells us that the peasants practise netting Quail with the "Trousse" without employing a dog. In this case, the men answer any wild Quail that may happen to call, and having netted it down, run up to the spot and endeavour to cover the bird with the net. A single fowler can also take Quail with the "Trousse" by attaching one of the ends of the bearing rope to a stake, which should be three or four feet long, and thicker at one end than the other. The stake is fitted with an iron point, so that it can be thrust into the ground to hold the net firm. When the dog finds Quail, the net is first secured by the stake on one side, and then drawn over to the other, thus enclosing the covey as if two men held the net. Yet another plan is that of stretching a net over a spot where the grass forms a high tussock in the neighbourhood of an injured bird. The fowler withdraws a few yards and begins to call the bird up to him. The bird accordingly runs up to the shelter over which the net is spread, the peasant then throws his cap on the net, thus alarming the Quail, which rises upwards and becomes meshed in the net. Quail taken in the fall of the year are termed "Cailles grasses," in consequence of the prime condition which the birds exhibit at the latter season. Kress says that most of the French peasants ("Biscoumiers") take Quail at night in the month of August. "In the plains of Maasi and Villeneuve St. Georges," says this writer, "I have often taken 20 and 24 Quail in a night, and it has happened to me more than once that Quail, in flying, have alighted on the net." The Germans are, or were, scarcely less adroit in netting Quail than their French or Italian neighbours. Bechm tells us how to set the "Wachtelgarn." This engine consists of three nets, the inner net being of greater length than the outer ones, in order that it may be able to belly out. The

"Wachtelgarn" is a triple net, varying in total length from twenty-four to forty feet. It is suspended between stakes, like the French "Halber," and is set in much the same way. When a Quail is heard in the fields, the net is set at a distance of about fifty feet from the bird. The fowler, standing or lying behind the net, begins to repeat the call of the female, *tee-tee, tee-tee*. The luresick bird listens eagerly to the invitation, and then runs blindly into the net. Another Teutonic device is to place a female Quail in the centre of a circular trap, surrounded by a series of trip-lines. The anonymous males enter the traps, which immediately close and obtain them as prisoners. Another plan mentioned in the *Alten und Jungen* occurred out when the corn is being harvested, and only one corner of the crop is still standing. All the Quail, like the Land Rails, take refuge in the rapidly diminishing cover. The fowler sets six or seven nets ("Stoekgarthen") obliquely across the field. He then drags a long line, to which small bells are attached right through the corn. The birds are thus driven out of the cover, and finally land in the nets. Another method of driving Quail was formerly practised in the spring, generally about St. Bartholomew's Day, when the birds were expected to have arrived in Thuringia. The fowler sets two long stake-nets alongside of two convenient hedges, adjacent to a crop of growing corn. He took eight or nine male call-birds, kept in the house from the previous summer, and hung them up on two posts on either side of the field. The call-birds emitted their ringing chirp the whole night, thus inducing all the Quail in the vicinity to enter the field. In the morning the fowler and his friends drove the field, and forced the newly arrived Quail to run into the walls of netting in their attempt to make their escape without rising upon the wing.

Another German device which has probably long been obsolete, is for the fowler to pitch two drays on stakes in the middle of a field of grass or half-grown corn. The fowler set up four flight-nets ("Fluggarthen") in the form of a square, leaving the drays in the centre. The flight-nets were placed a little distance apart, so as to allow plenty of room for the wild Quail to enter the enclosure. A "Wachtelstoekgarthen," such as has already been described, was set in a circle around the centre of the square shut in by the walls of net. The fowler concealed himself inside the low net, covering his person with a square "Thrasegarbe" of green thread, which he could throw over any birds which found

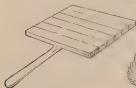
their way made the flight-nets. The use of the "Timazgare" or "Timse" is still well known in Russia. Mr Douglass informs me that the Russian peasants employ this device somewhat as the Germans used to do. "When the Quail begin to pair, a man takes a big, square net, with a hole big enough to let his head and shoulders through. He imitates the call of the female and they all rush under the net. He then suddenly jumps up, and the birds are caught in the net above them. All depends on good calling." Mr Douglass also says that Quail are caught singly upon their first arrival in Russia. "A man goes out with a dog, and when the dog points dead, he throws a three-cornered net over the bird." "Quail" buzzards, are also caught with a lantern at night, and a small net. Quail are caught in the beginning of May by entering them with a Quail-call under nets loosely spread over low bushes."

Selivanovski describes the manufacture of a Trail-net for Quail, but it is merely a big drag-net, used in both spring and autumn for taking Quail by night or day. Two men usually bear this net, while a third follows behind holding strings attached to the outside of the net. The last man rearranges the net if it happens to become entangled. August is the chief month in which Quail are caught with this engine in Russia. I have not received any personal information as to Quail-catching in the south of Russia. Pennant, whom we may believe derived his information from his friend Pallas, states that in his time Quail swarmed on the Dnieper and elsewhere in the south of Russia at the periods of migration. The birds were taken in thousands and sent in casks to the markets of Moscow and St Petersburg (*Lect. Zoology*, Vol. II. p. 329). Pallas himself informs us that "Quail descend in the Crimea in autumn, when they visit the valleys between the mountains and migrate late in the season to Anatolia. Great numbers are caught by the shepherds with baskets attached to poles, which are placed over the birds while they descend to the ground" (*Travel Through the Southern Provinces of the Russian Empire*, Vol. II. p. 459).

The European markets are supplied with immense numbers of Quail taken in Greece. I cannot hear of any Quail-netting in Thessaly or elsewhere in the northern part of that kingdom. The dealers appear to draw their supply of living Quail from the south of the Morea, and from certain islands upon which the birds rest during their prodigious journeys. Mr A. L. Crowe of Zante has induced Mr D. A. Pantagopulo of Calamata

to favour me with the accompanying report. The Quail which visit Greece have, according to this gentleman, two annual passages, which occur about the 15th of August and the end of September. The birds generally arrive in huge numbers, representing clouds of birds, generally towards the evening, and alight on the first points of land, such as Coronea and Le Magna, at the point of Cape Matapan. The fowlers are on the lookout, and begin to pursue the birds as soon as they alight. The Quail are then very much exhausted by the great journey which they have accomplished, and allow themselves to be easily captured. The birds do not remain more than twelve hours. The fowlers take the Quail during the day with a net of variable diameter, similar in shape to a butterfly-net. This net is mounted on a handle two or three metres long. The Greek peasants are very adept at catching the Quail which squat under their feet. At night the fowlers employ a similar net, which is, however, furnished with a much shorter handle, measuring about a single metre in length. The fowler also carries a touch of resinous wood, and each man puts the Quail that he catches into a linen bag, or into his bosom. Some men can take as many as a hundred birds in a few hours. It is calculated that 40 000 Quail are taken every year. The birds which are taken alive are sold to the merchants, who place them in large cages, in which they are despatched forthwith to Marseilles. The aged birds are fed on grain. The cages in which the birds are placed measure about two metres long and one metre deep. The height of such a cage is about twenty centimetres. The top of the cage is not of wood, but of packingcloth, so that the birds cannot injure themselves by striking their heads. The price of the Quail varies from thirty to forty lepta a couple. The birds which are taken dead are preserved in oil by the peasants, who keep them for their home consumption. Mr John Calkou of Cerigo (the ancient Cythera) reports that large quantities of Quail are caught on that island in autumn. In Cerigo the fowling-season commences in the beginning of September and terminates about the end of October. The birds are caught by both day and night upon this island. The night fowling requires the assistance of a light, unless there is moonlight. The method in vogue is curious. The fowler prepares beforehand a sort of gridiron with a wooden handle. A fire is kindled upon this gridiron before the fowling begins. The fowler takes the Quail in a hand-net which is fastened to a hoop formed of the branches of the Lotus tree. This

hoop is fitted to a round handle. When night falls the fowler takes the griffin (upon which the fire is lighted) in his left hand and the net in his right hand. Thus accoutred he runs over the fields or mountains. When a Quail sees the light, the bird becomes dazzled, the net is thrown over it and it is taken alive. When the passage of birds is large, each fowler can take a hundred birds in a single night. The merchants buy the birds for from twenty-five to thirty lepta ($2\frac{1}{2}$) apiece, and the birds are shipped in cages to Marseilles. When there is a great passage of Quail, the merchants reckon that the export amounts to from 20,000 to 25,000 birds annually. The *modes operande* of capturing Quail in the



GREEK GRIFIN.



GREEK QUAIL-NET.

daytime is for the peasant to employ a dog in addition to the net already mentioned. The dog is trained to run before his master, who follows with the net. As soon as the dog scents the Quail he makes a point, his master then approaches and orders him to advance into the bushes or thorny scrub.

As soon as the Quail is flushed, the sportsman either turns down the hand-net to cover the bird, or catches it in the air. The number of Quail taken during a night passage is greater than that captured when the migratory host settle on the island during the day. The Island of Thera is famous for the number of tired birds that rest for a few hours upon its shores before resuming their protracted flight to the shores of Northern Africa. Quail, in particular, visit Thera in large flocks. The migration of Quail strikes Thera between the 20th of August and the end of September. The birdcatcher employs a hand-net, apparently very similar to the implement adopted on Cerigo, having a diameter of one metre. The man takes his dog to the ground which it is likely to afford cover

to Quail. When the dog points a bird, the fowler covers it with his net. Many of the natives are so adept at this variety of fowling that they can guess exactly where a Quail will alight, and cover it with a net as soon as it reaches the ground. The Quail are not attracted by a light on this island, unless a north-west wind is blowing. I have much pleasure in thanking Mr. Theodore Bent for the data which he procured for me about Thera. It is given upon the authority of a former servant of his. This man lives on Anaphi (where the Quail are only shot), but he is intimately acquainted with Thera.

Before we quit the subject of the migrations which the Quail accomplishes across the Mediterranean region a few words may be said concerning the occurrence of the species in Spain.

The Quail is a partial resident in both Spain and Italy. But most of the birds which the Spaniards catch in their low nets appear to be



THE TIRAFIL.

genuine migrants. Colonel Lily says that vast numbers are caught in the spring with small nets by the aid of the Quail-call ("Pitillo").

When I was in Navarre the local sportsmen assured me that it is in the autumn that they take a heavy toll of Quail by means of nets. In corroboration of this, they produced a net of the kind that would have been called a 'Ragna' in Italy. It was made of fine green thread, so as to match the colour of the foliage. They also produced a circular metal Quail call. This certainly rendered the cry of the Quail with great accuracy. They explained to us that the net was suspended in some suitable place by means of the cord which passed through the beaver rings attached at intervals to its upper margin. The birds were called together by a conical funnel. When the birds had assembled in a small area, the Fowler suddenly jumped up, and the startled birds at once flew or ran into the meshes of the net which barred their way of escape. According to Thompson, the Quail which migrate from Europe to Africa in the fall of the year arrive in the neighbourhood of Alexandria about the 20th of September. There cannot be two opinions about the immense numbers of Quail supplied to Europe from Egypt. I believe that these birds are chiefly taken upon their vernal migration northwards.

[The German Quail-call which forms our tailpiece is reproduced from Reclam's *Fogelhaus* (p. 99). The central portion of this bird-whistle (*c*) consists of a small spherical bag of calf leather, which has been moulded into spiral form upon a conical block of wood while still soft from being soaked in water. The stopper (*b*) is a wooden plug. The mouth piece (*a*) is supplied by the humerus of a goose, which has been fitted up as a whistle. The headpiece is reproduced from the *Arten von Vogeln*.]



GERMAN QUAIL-CALL



CHAPTER XXXIX.—QUAIL-CATCHING IN THE EAST.

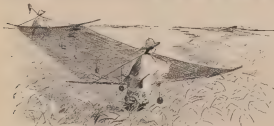
THE Dean of Chiro informs me that Quail are taken in Egypt in the following way:—"the natives put up long strips of netting, parallel to the sea. At daybreak the Quail come in flocks and settle on the land. The Arabs then drive them into their nets." He has also forwarded a note from a friend who says, "Quail are caught by nets being placed by the seashore or anywhere else where they are expected to come in, and often the natives pick them up in great numbers, as they are nearly always too tired to fly or even run when they arrive. More are so caught than in nets. The natives sit and watch for their arrival." Cuvier Tristram mentions that Quail are taken in Palestine in artificial runs formed of brushwood, which terminate in a bag-net. Many devices are practised in different parts of India for snaring and netting Quail. Mr Harold

Littlehale has sent me the accompanying note to explain how the Quail is captured in the vicinity of Banoda. "The grey Quail come in here about October, and are taken in nooses or under nets near the open-air threshing floors in the fields, or in cool patches of grass near water. The modes *specimens* of the Wagri is much the same as explained in the case of Floridan. The small Banuquail and the various Bush and Bustard-quail are generally taken under a net spread over a patch of isolated cover to which they run (not altogether without Wagri guidance) after drinking. Call-quail are not used by the natives of this district, but at times a Pardue (up-country man from Hindustan) comes round with some, and they are useful for collecting the birds into corners, which become too 'hot' for them when the sportsmen arrive on the scene. The callbird is placed out at the earliest dawn, and from his cage birds defiance at all Quail-kind. Every male Quail within hearing responds to the challenge, and rushes to the fray, while his kaly friends come to look on and cheer him. Then the sun rises and the light streams over the glistening corn, and a sound is heard of men advancing and beating the ground with staves, and Quail fly up, and the heavens thunder, and more Quail take to flight, and more thunder crashes overhead, and the call-quail in his cage meditates, for he has heard these noises before and not been harmed by them. And there is a rushing forth of little black legs amid the corn, and frantic pursuit of 'runners,' and fastening of forks upon game-sticks, and much rejoicing of sportsmen if the powder has been straight and the Quail numerous." Mr Littlehale has sent me a dust-coloured net, which the Wagri employ in Quail-catching. It is made of thread, and when rolled up can be carried in a very small compass. He has also obtained for me a set of frames, made of bamboo, each frame being supplied with horsehair nooses. This engine only differs from that used for taking Floridan, in its inferior height. Mr J. S. Grove of the 1st Bengal Cavalry favours me with the following note: "I have served in various stations in Bombay, Central Provinces, Punjab, and north as far as Peshawar, so have seen a good deal of the various methods of trapping used, but I do not think that they vary so much as you might suppose. There is the common way of snaring Quail by means of a series of low screens or frames covered with netting, which the fowler carries under his arm. He has with him a specially trained bullock or buffalo. When he sees in front of him a covey of Quail running through the

grass, he gets well in front of them by making a déton, and puts down his frames in the form of a big V, at the apex of which a hole is left with a bag-net. He then gets in rear of the Quail again and with great skill gradually makes his bent grass towards them, and thus little by little edges on the birds till they strike one of the inner wings of the V, along which they run finding no exit, until at length they reach the point of the triangle, and running into the network bag the long string is pulled by the fowler and the birds are secured." Many Anglo-Indian naturalists and sportsmen have referred to the native methods of Quail catching, but their remarks seldom possess much novelty. Mr George Reid states that netted Quail are sold in Lucknow for from two Rupees to two Rupees eight annas per hundred, which may convey some idea of the vast quantities which are taken. The best male birds are retained for the sport of Quail-fighting, to which the Mohammedans are fondly attached (*Stray Feathers* 1881, p. 61). Jerdon says — "Quail are netted in great numbers in some parts of the country, and many are also caught in hair-noses. The Nepalese have an ingenious way of catching Quail. They put a pair of imitation horns on their heads, and walk slowly about the stubble-fields, twirling some blades of grass in their hands to imitate the clumping of grass by cattle, and as these birds are not alarmed by cattle, they succeed in driving any Quail they see under a small net, which they then drop and secure the bird." (*Birds of India*, Vol. II, p. 588). The Indian Pioneer Mail of May 29th, 1895, contains the following note from one of its own correspondents regarding the form of Quail-catching practised by the Swatis on the Swat River in Chitral — "You now and then come across a native catching Quail in a barley-field with a net and a dog. It is a most curious form of sport, evidently requiring great practice and skill. As far as one could judge from a passing, roadside study of this, the man holds a fan-shaped net in front of him, at an angle of about 45 degrees, and swings this laterally, meanwhile the dog quarters the ground close in front and drives the Quail back to the fowler. As the birds rise, he seems to drop the net on the top of the barley with a circular sweep, and they are caught."

We have only referred so far to the Quail of history (*Coturnix coturnix*). The bird which replaces the fawn familiar to us in China and Japan is the Japanese Quail (*Coturnix japonica*). This Eastern race differs from the European bird chiefly in the male having the hoes,

sides of the head, chin, and throat uniform dull brick-red, without a trace of the black anchor-shaped mark " (*Cat. Birds*, Vol. xxii. p. 239). The female of the Japanese Quail is distinguished from the female of the house bird by the elongate and lanceolate feathers of the throat. Swinhoe wrote of the Japanese Quail that it was common in the vicinity of Hong Kong, but only a winter visitor. " Numbers are captured and brought to market in baskets, the best males being selected first and confined separately in straw baskets, for pugilistic purposes. For the table they sell for at 4s or 5s the dozen, but the manlike individuals fetch 1s or 2s apiece " (*Ibid.* 1861, p. 50). Mr. Styan has favoured me with a sketch of the engine which he has seen employed for Quail-catching near Shanghai. A net about thirty feet long by twenty feet broad is hung between two long light bamboos and carried horizontally three feet above the ground by two men. Along the centre of the net, from man to man, hangs a row of straw ropes a few feet apart, the ends of the ropes having balls of straw the size of oranges. These just touch the ground, and,



QUAIL-CATCHING IN CHINA.

flushing through the grass, flush the Quail, which on rising strike the net. The men instantly drop it, and fishing out the bird from below with a kind of hushung-net, put it alive into a bag carried round the waist. All Quail are thus brought alive to market. This method of Quail netting is practised on the undulating hills, chiefly on terraced fields which are in stubble, or in many cases have been thrown out of cultivation, and are

covered with short grass and some dry weeds, of which the birds appear very fond.

Kum Ayen, a Chinese writer, states that the Drag-net has been used in China for Quail catching since the reign of King Tang, B.C. 1766. He adds that the ancient pattern of net "should be 50 feet long and 12 feet wide, with meshes about an inch square, two men, one at each end, drag it along over the grass, when the frightened birds are easily captured."

But the nets just described are not the only ones used in China. "Near Chinkiang on the Yangtze," says Kum Ayen, "some two or three years ago, I chanced upon a couple of men carrying a bamboo frame about 15 feet square, over which was stretched an ordinary fishing net. At the four corners of the frame were hung a number of little bells. My first thought was that they were fishermen, but on enquiry they told me that they were after quail. The novelty of the thing attracted me, and my curiosity made me follow them. Arrived at a field of standing grass, the men faced one another, each at one side of the bamboo frame, with which they gently lashed the grass tops, jangling the bells by the action. The grass being too thick to run through, the little birds had no alternative but upward flight, when the net was immediately dropped and the capture effected (*With Gun and Bow in the Yangtze Valley*, p. 182).

Mr H. T. Wade reports that Quails have of late diminished in the Yangtze Valley, owing to the vigour with which netting is carried out. "Two men with simple drag-net will, in a very short time, account for a profitable bag. The birds are secured in low, flat baskets capable of holding from 50 to 100, topped by a cloth to prevent the prisoners damaging themselves, and are then sent to the local markets or forwarded to Shanghai for transshipment to the south, where they are bought as much for fighting purposes as for food. For, be it remembered that the quail is one of the most pugnacious of birds, and plucky to a degree; and that a good really fighting bird often fetches a long price."

David explains that the Chinese fanciers adopt a peculiar method of taming their fighting Quail. The plan in question is that of compelling the birds to undergo a succession of baths in hot tea. Each bird is dived by being placed in the sleeve of his owner. After a course of these baths, which are followed by a meal, the Quail is sufficiently

habituated to the hand of its trainer, and is ready to enter the lists against its rivals. These Quail contests are the delight of the Chinese, who often risk large sums in wagers upon their favourites.

The Japanese Quail is sought after by the native fowlers, like its European representative. Its capture is effected by the means of an engine called the "Kasumi Ami." This is a net of fine but strong thread, and is made in the form of the Italian "lagna." It is intended to be stretched perpendicularly between upaught stakes of bamboo. The Japanese bird-catcher employs five or six such nets at one and the same time, ranging them across the field in which fowling is carried on. The cover purchased consists of reeds or of sugar plants. The birds are lured to the spot by the notes of caged drongos. Each call-bird is hung in its own cage from a bamboo, at a height of three feet, or even less, above the ground. The wild males hear the challenge of their captive rivals and run towards the spot from which their challenge issues, intending to give battle to the intruders. The female Quail follow in the wake of their mates, and fall victims to the same fate, being meshed in the net as soon as the fowler drives them forward.

The best time for catching Quail in Japan is in the first hours of morn, but sometimes the noon and the evening fowling yield satisfactory results. Professor Ijima writes to me that the Quail commands high



Japanese Quail-catcher.

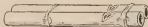
prices in Japan. Large quantities are caught during autumn, winter, and the early part of spring, but principally in autumn. The birds which are obtained in autumn are frequently fed in confinement until the following summer, and sold when no other kind of game can be

purchased in the markets. The use of ground snates for Quail-catching is well known to the Japanese.

Mr S. Fukushima writes that the snates in question consist of sets of *hōschan* meshes. These are suspended in a row beneath an arch of bamboo. The bamboo measures about three feet in length. It is closely shaved, to reduce its bulk, and render it an easy matter to bend it into the form of an arch. A line of plaited horsehair is stretched across the arch formed by the bamboo, and serves to support the snates, as shown in the illustration. Four running meshes are attached to each bamboo arch or frame. The Quail-catcher is provided with as many as a hundred of these traps, which are set in natural hollows, and "between bush and bush."

The employment of decoy Quail is supplemented by the addition of a Quail-call. This consists of two small bamboo pipes, measuring two inches and three quarters in length. These are notched near the lower extremity, and are bound tightly side by side with thread, the latter being secured by notches cut upon the sides of the pipe. The ends of the call are left open. When the fowler wishes to entice the wild Quail into his net he takes his pipe and places it between his lips. He closes the lower ends of the pipe with the fore-fingers of the left hand and blows, "*P'po, p'po, p'po*." So at least writes Professor Iguma, who procured the pipe figured here.

[The headpiece represents a Chinese method of netting Quail. It is reproduced from a Chinese original by permission of Mr H. T. Wade.]



JAPANESE QUAIL-CALL.



CHAPTER XL.—RED-LEGGED PARTRIDGES AND FRANCOLINS.

THE RED-LEGGED PARTRIDGES (*Choreolus*) are remarkable for the handsome pattern of their plumage. Peveralsky's Red-legged Partridge (*Choreolus nyagou*) inhabits the mountains of Northern Tibet. The large Black-headed Red-legged Partridge (*Choreolus melanolephala*) is a desert bird common in the ravines near Aden, but restricted in its range to South-west Arabia. The three species which remain to be considered often afford good sport to our countrymen abroad. They are the Common Red-legged Partridge (*Choreolus vulgaris*), the Barbary Partridge (*Choreolus pectoratus*), and the Greek Partridge (*Choreolus montanus*), with its eastern form or sub-species (*Choreolus arabicus*). The first named of these is well known as an introduced species, in many English counties, but it was a stranger to Britain in the days when fowling furnished among our forefathers. It is necessary, therefore, to cross the English Channel to learn the rules by which our Gallic neighbours used formerly to net this bird. Most likely some of the devices which will be noticed in the

chapter on the Common Partridge (*Bonasia assona*) applied to "his perching ranges" as well as to the grey species. But one particular French plan for taking the "Red-leg" is worth glancing at. The fowler, as the "Séduite Invenit" tells us, must first provide himself with a proper call for reproducing the note of the hen, for this is a device for capturing males only. This birdcall is as large as a hen's egg, and is made of wood in an oval form. It is pierced from end to end. The quill of a Swan or the metacarpal bone of a cut is inserted into one of the openings, and extends to the middle of the call, which has a large opening in the side. A second hollow quill is inserted into the other extremity of the whistle. The fowler arms himself with this bird-call and a pocket net, in addition to which he cuts a plant switch, which he sharpens at both ends. Thus equipped he commences operations either in the first blush of breaking day or a short time before sunset. Occasionally he may try his luck in the middle of the day. When he hears a cock "Red-leg" calling in a vineyard, he searches for some small run beside which there is enough cover to conceal him lying on the ground. He next inserts into the north the switch which measures four or five feet, in bow form. To this he attaches the sides of the pocket net, securing the net in such a way that its upper edge is lightly attached to the switch which serves to keep it in the desired position. When the net is properly placed the fowler throws himself on the ground, and prepares to call the bird which he wants to catch. When the bird opens his challenge, the sportsman gives two or three calls with his whistle not loud in volume but obsequious to catch the listening ear of the Partridge. The bird will then rise and fly to within twenty paces of the fowler, alighting on the run or footpath, to listen again for the voice of the imaginary siren. The fowler then answers with a low call, at which the cock Partridge comes hurriedly along the run. Before he has time to think of retreat he finds himself entangled in the given net which bars the way. This plan is, or was, practised only in the spring and summer months for taking such male birds as had failed to find mates. It may be questioned whether it injured the interests of *bon job* sportsmen. There is usually a considerable preponderance of the male sex among game-birds, and the bachelors often disturb the peace of paired couples.

In Spain the "Red-leg" is commonly shot to decoys both in the season of love and during the great heat of August. Colonel Iliby

remarks that the Spaniards "like to make a hiding-place (*quicio*) near the drinking place of these Partridges, placing well-birds on each side of the water, out of the line of fire." Messrs Chapman and Buck found the "Red-leg" very scarce on the hills of the Sierra de la Jarda, and no wonder, since every farmer keeps his pair of well-birds (*cochinos*). When I was staying in one of the villages of Navarre a few springs ago, our party were entertained by the vociferous calling of a tame "Red-leg," which was kept in a cage for sporting purposes. This bird would, I imagine, be placed out in the fields for decoy purposes. Its cage was painted green, to match the colour of the grass. The Indians are fond of shooting "Red-legs." They take them also in besenchar snares. A peculiar method of catching "Red-legs" was practised on the island of Elba in Savoytime—say between sixty and seventy years ago. Desiring to ascertain whether the use of this trap, called "Nassa" had become obsolete, I put myself into communication with Signore Giuseppe Tometti, the British Vice-Consul of Elba. This gentleman has been obliging enough to inform me that the "Nassa" is still in use for



Red Partridge-trap.

catching Red-legged Partridges. The trap in question is employed in elevated situations, generally on the side of a hill. The upper end of a field which has been sown with corn is a favourite spot for setting this trap. The "Nassa" is a circular frame of wickerwork, and is set in the

way shown in the illustration. A string is fastened to the edge of the "Nassa" or basket. This string passes over the wooden horse, and is fixed at the other extremity by the peg resting against the second wooden horse. This keeps in its place a small piece of cane, twenty centimetres in length. This piece of cane is filled with corn and is suspended at a height of two or three centimetres above the earth. The "Red-legs" are induced to run under the "Nassa" by means of a prepared trail of corn. When the birds have eaten all the corn which they find strewn upon the ground, they begin to peck at the grain contained in the cane trough. Naturally, they soon upset the balance of the trap, which is released from its fixed position and falls over the Partridges. A less worthy device for capturing these birds, also practised in Elba, is to take them by means of small fishhooks. These are baited with peas and tied to the vines with pieces of silk thread. In the months of August and September the Partridges are wont to resort to the vineyards in order to gratify their passion for the ripe fruit. Many grapes, of course, fall to the ground and the birds glean the harvest. The peas used as bait are previously soaked in water to make them soft. If an entire covey of

Red-legs' happens to make their way into a vineyard where these hooks have been set, the chances are that the whole of the party will be captured by the treacherous hooks. Bennett tells me that the shepherds of Elba shoot many broods of Red-legged Partridges in the close time. The pastoral method is to build a small conical hut, large enough to contain a man, in the vicinity of some broods of these Partridges. The shepherd covers the roof of his hut with corn. The birds soon ascertain the whereabouts of the stores and resort thither to feed. The peasant is then able to wreak havoc among them. As many as fifteen and even a score of birds have been killed in this manner at one time. The Red-legged Partridge has been known to interbreed with both the Greek Partridge and the Barbary Partridge.

I am indebted to the kindness of Mr G. H. Fernan of Casablanca for an interesting account of the method by which the Barbary Partridge is commonly captured in Morocco. Mr Fernan writes to say that for taking Partridges and Francolins, "a train of" chapped straw is laid from the vicinity of a covey's nesting-place to some open spot where a semicircle of stones has been laid down. A little corn duly renewed for about a week, is placed near the closed end of the semicircle. After a week has

elapsed, the birdcatcher, during the night, fixes a net under the stones, raising the centre and mouth of the net with sticks. He then hides in a convenient bush, and awaits the arrival of dawn and his covey. When the covey enters the enclosure, the netter runs up and pulls down the mouth of the net. He often succeeds in taking the whole covey at once. When no natural cover exists, a hiding place of brushwood, stones, or earth is made at the time the snare is prepared."

Mr C. H. Poyton, who resided many years at Megalora, assures me that the Barbary Partridges are there netted in huge numbers, "dropped into nets [of the kind just described] by means of barley or other grain. The Greek Partridge is mainly confined to the mountainous districts of South West Europe. Signore Galli regrets that this bird is decreasing on the slopes of the Italian Alps. He ascribes the diminution of its numbers to the action of the peasants in shooting the birds in the spring of the year. Their custom is to visit a spot frequented by these Partridges, armed with a gun. The aid of a caged decoy of the same species is invoked. The tame bird responds to the challenge of its free rivals. The wild birds are thus lured within gunshot, when their fate is sealed.

It was formerly supposed that the range of the western or typical form of the Greek or Black Partridge (*Circulus squaboides*) extended to Palestine. Mr Ogilvie-Grant has now ascertained that the eastern form (*Circulus chukar*) is predominant as far to the westward as the Grecian Archipelago and the Ionian Isles. He questions, indeed, whether the Partridge of the Moroa should not be referred to the Chukar, the bird which English officers, who have served in India, are so familiar with. Against this view we must set the fact that the late Dr Fice figured (*Birds of Europe*, Second Edition, Vol. iv. p. 147) what he calls the typical Greek Partridge, an adult male from the Moroa. This bird is described as possessing both the black boxes and the white throat which Mr Ogilvie-Grant tells us are the distinguishing characters of the true *Circulus squaboides*. But enough has been said for present purposes. The form of Red-legged Partridge which is found in the Island of Cephalonia is the object of keen interest to the native gunners.

Mr John Saunders, the British Vice-Consul of Cephalonia, has favoured me with the information that the islanders pursue the Partridges under cover of a screen, here reproduced from the original sketch sent by Mr Saunders. "This Partridge-cloth or screen is an oblong piece of cloth,

used principally by the peasants who stalk under this cover, somewhat like a banner which they carry before them (slightly slanting). As soon as the birds come within range they are fired at through the slit, and then the other sportsmen who are under cover come up from behind



Peasant Cover.

to take their part in the sport. The best time for stalking is about daylight, and before dusk." Mr Alfred L. Crowe writes to me that on one occasion, when shooting "Red-legs" in the Morea, he witnessed the use of this engine from the opposite side of a ravine. The man had a many-coloured sheet or cloth, attached to a stout bamboo cane, which he carried like a banner. Below was a slit for the barrels of his gun to pass through, and he appeared to have two smaller canes, with which he kept making a noise by striking them together. This was done after his dogs got up the covey, and it evidently required great caution and tact to approach them hidden behind the banner, and

meanwhile striking the smaller canes. This seemed to paralyse the birds and the slaughter followed. The Chukar is sought after as a game-bird in many parts of India. General Stewart writes that, in the Himalayas, this species is often kept as a pet by the hill people, generally as a cage-bird. He was told that some of the Shikarees attract the attention of these

birds by exhibiting a piece of coloured (generally brown and yellow) cloth or cotton carpet, spread out on the end of a stick or fashioned like an umbrella. The sportsman holds this out before him, and the birds impudently approach within easy shot. My informant said the birds take the snare for a rat or leopard, and, instead of shunning it as it is their nature to do, come near as to fall victims to their temerity (Zoologet, 1886, p. 133). So far as I can judge, this device is of kindred nature to that practised in the Morea.

It must not be supposed however that the Greek peasants are content to procure Partridges only with the gun. Mr Pantagopulo reports that these men trap Partridges in pitfalls. The fowler makes a hole in the earth in a likely spot and fills it with corn. He then covers the hole with a flat stone. This is supported in a slanting position, like the slate often used in a brick-trap, by means of a figure of four. Mr Pantagopulo states that two small pieces of wood serve as the support, and this is borne out by the pen and ink sketch which he has kindly forwarded. The hungry Partridge descends into the pitfall to feed upon the grain, and while thus engaged disturbs the balance of the trap and closes the exit. Canon Tristram notices that this Partridge is very common in the hill country of Palestine. In the early morning its ringing call-note echoes from cliff to cliff. The mountaineers of Lebanon are specially adept in effecting the capture of this species. Their plan is to construct a long, narrow run of brushwood, leading up to the cage in which the decoy is concealed. This run gradually contracts until it terminates in a log-net, which is suspended across the path. Whole coveys are taken in this manner. The nestlings are brought up in captivity, either for food or to serve as call-birds (*Nat. Hist. Bible*, p. 164).

The Francolins (*Francolinus*) occupy such an eminent position among the game-birds of Africa that it is of importance that we should know something of the devices which the native races have employed to effect their capture. Sir Benjamin Stone, M.P., has kindly written to explain a method of capturing Francolins, which he recently observed in South Africa. He does not identify the species to which his remarks apply, but as he says that it was plentiful and bore some resemblance to the Grey Partridge of Europe, I am disposed to conjecture that he probably met with the Quqi Francolin (*Francolinus quqi*). This bird is rather smaller than the Common Partridge, but resembles that species in its

habits, and is widely distributed. The plan of hunting which Sir J. E. Stone reports is carried on by Zulus. These natives fix the snare amongst the coarse grass of the veldt in the run of the Framolins. A slight lattice of obstruction made of stems of strong grass or reeds extending for a little distance on either side of the run, is erected with the object of forcing the bird to pass through a gateway or opening which is across the run itself. In this gateway are carefully placed the treacherous



STILL SNARE FOR FRAMOLINS.

nooses which are to entrap the game. These are cleverly made of finely twisted or plaited grass, and are flexible and strong. The boys then drive the birds into the snare."

That beautiful little game-bird the Common Framolin (*Framolus vulgaris*) now unhappily extinct in most parts of Southern Europe, is valued in the East as a household pet. Mr J. S. Grace observes that the chief admirers of this bird "are the pious Mohammedans, who translate his guttural cry as 'Bismillah, tere kudrat' a verse from the Koran, meaning 'Oth, God! great is Thy power'." For this reason, a Black Partridge is as much a member of a Mohammedan household as a Green Parakeet is a member of a Hindu menage. Mr Grace informed Mr Hume that a common native plan of capturing birds of this species is to employ a decoy which has been caught as a chick and reared by hand. Such a call bird is placed in a cage which is surrounded by horseshoe snares and placed in some haunt of the species. The wild birds visit the decoy and are, of course, taken in the snare. Nets are also employed for the capture of the Black Partridge or Framolin. This bird does not seem to be mischievous or intolerant. On the other hand the Grey Framolin (*Framolus pinnatus*) is often kept by natives to whom its bellious propensities afford not a little amusement. Mr J. S. Grace notices that the natives teach the young Grey Framolins to fight, 'by

suspending a tassel of red worsted from the top of the cage,—the birds are invariably kept in separate cages,—at which they peck and spar, and they are also made miserable by being blown upon.' Mr Tipoe adds that the Grey Francolin 'is caught either when very young, or more half of grown or when fully adult.' The cock birds are the only ones of use for fighting, and the means employed to snare them are as follows: the wily Fowler seeks the jungles where, amongst scattered wild rose bushes and rank grass adjoining cultivated fields, the Grey Francolin loves to lie. The native has with him, covered with a cloth, one of the small wicker cages of the country, about ten inches square, in which is a tame decoy (cock) bird. In these small cages the birds are invariably kept, and crows to say, seem to thrive, notwithstanding their cramped quarters. The outside of the cage has attached to it a number of nooses. The Fowler holding the cage in one hand, slips the cover off, and blows hard with his mouth on the decoy bird, ruffling up his feathers. The Grey Francolin is a most insensible and pugnacious bird, and he therefore at once falls into a furious rage and begins to pour forth his loud prolonged chuckling note of defiance. The Fowler at once puts down the cage and retires a short distance to hide himself. In a minute or two an answering call is heard, and in another moment a wild cock bird furiously hurls himself upon the cage containing the intruder into his domain, and the decoy being also 'spoiling for a fight,' a desperate battle begins through the bars of the cage, which soon results in the wild bird being caught in one of the nooses. The native then approaches, seizes the spoil, puts it into a dark bag, and again retires, whilst the decoy, being firmly convinced that he has defeated and put to flight his late antagonist, again begins to call, and invite a new antagonist. As may be imagined, this is a most destructive mode of fowling, and the takes are very large. The Fowler returns to his village, and finds a ready sale for his wares at a few pence a head." Colonel Tickell affirms that there is hardly a village in the wilder parts of Upper or Western Bengal where the amusement of catching these birds is not in vogue. "For this purpose a tame Grey Francolin is placed in a small cage covered with strong horsehair nooses, and carried out of an evening or early morning to the jungle. On arriving at a likely spot, the Fowler blows two or three times upon the bird in the cage, which has the invariable effect of rousing the little captive into a perfect fury." The wild birds answer its challenge, and

are taken as already described. Mr Grove remarks that the fresh-caught birds are at first starved for a few hours, and afterwards fed upon insects. They lose their shyness in a few days. They have usually become so tame by the end of a fortnight that they will not fly away when placed opposite their antagonists. Of course the practice of the fowlers vary in different localities. Mr Littlehale informs me that, in the neighbourhood of Baroda, the Grey Francolin which are kept for fighting "become so tame as to run along the road side after their owner, who lets them out to feed on grasshoppers. These birds are dirty feeders, and the adults are generally caught in the outskirts of the villages." Mr Littlehale has furnished a specimen of the snare employed to take the Grey Francolin in the vicinity of Baroda. This trap consists of fourteen light bamboo frames, fitted together in such a way that they can either be extended in a long line or folded together, when the frames pack into a very small space. Each frame measures about twenty inches and a half in length, and about five inches and a half in height. Each frame is divided by fine splints of bamboo into five separate compartments, in each of which a black horsehair snare is suspended. The fowler carries as many of these light series of frames as his operations are expected to require. He sets his frames in a likely situation in dense cover, and then proceeds to drive the birds into the long line of snares.

The Painted Bush-Quails (*Macropodus*) rank among the smallest game-birds of India. The Painted Bush-Quail (*Macropodus cythreochrysa*) inhabits the hills in the south-west of India, and is plentiful on the slopes of the Nilgiris. Davison informed Hume that these birds are very easily snared. The simplest plan is to stretch a piece of string four or five yards long tightly above the ground at a height of about six inches, in any place which these birds frequent. The fowler attaches to this string a number of horsehair nooses, placed closely side by side. He then sprinkles a little grain along both sides of the snare. The Painted Bush-Quail readily feeds on the corn which they find scattered on the earth, and, in running to and fro to pick up the food, they insert their heads into the fatal nooses. Another plan is to take these birds by means of a drag of the same species, which is kept in a trap cage of the pattern so often seen in India. This cage is provided with a series of small trap doors. Each door closes when a wild bird sets foot upon the spring which keeps it open. The native fowler sets his bird in a suitable position and

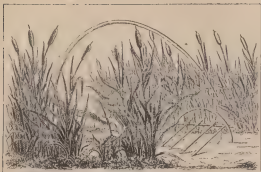
then whistles its call note. The tame bird replies, and its notes soon attract the free birds. Miss M. Cockburn informed Mr Hume that a small bamboo framework, three or four inches in height and of varying length is sometimes set round the cage of the decoy in a zigzag fashion, at a distance of two or three feet. This little fence is provided with numerous apertures, in each of which a snare is placed. As Bush-Quail prefer to creep through any aperture to flying over an obstacle, many are secured in this fashion. Miss Cockburn notices that when the natives come across a very young brood of these Bush-Quail, they catch two or three of them and put them into a hole in the ground, which is about a foot deep. The natives then hides behind some bush. The parent birds soon discover the loss of their chicks, and finding that they cannot extricate them from their unfortunate position, they soon drop into the hole to join their company. The native seizes this moment to creep up softly and throw a cloth over the hole. Mr Charles Hose assures me that several small species of game-birds are captured in Borneo by means of the Sprunge known as the "Pongok." Mr Hose enumerates among the birds snared in this fashion the Crimson-headed Wood Partridge (*Macropygia sanguiniceps*), the Ferruginous Wood-Partridge of Borneo (*Colaptes bitorquatus*), the Red-Crested Wood-Partridge (*Rallulus modiolus*), and the Black Wood-Partridge (*Melanocephalus nigres*). These birds all love dense cover, and are taken by the native hunters by means of Sprunges set in the runs which they follow through the jungle. The Hemipodes (*Ternstroemia*) are well known in India, especially that widely distributed bird the Bustard Quail (*Ternstroemia bryonia*). This species, like the Grey Francolin, is extremely pugnacious. Sprunge to say, it is the female Bustard Quail which chiefly exhibits this trait. The natives catch many of these birds in the neighbourhood of Calcutta. They do so by means of a female decoy, which is confined in a trap-cage. Mr P. W. Mun remarks that the male birds are rarely captured in this way. As many as eighteen birds have been brought to him in succession, all of which were females. Some of the number laid eggs in the basket in which the birds were carried (*Ibid*, 1894, p. 75).

Jenban also comments upon the belliose disposition of the female Bustard Quail, which is most pronounced about the breeding season. He speaks of the characteristic in question as leading to its frequent capture. "For this purpose a small cage with a decoy bird is used, having a

concealed spring-compartment, made to fall by the snapping of a thread placed between the bars of the cage. It is set on the ground in some thick cover, carefully protected. The decoy-bird begins her loud piping, call which can be heard a long way off, and any females within earshot run rapidly to the spot, and commence fighting with the caged bird, striking at the bars. This soon breaks the thread, the spring-cover falls, ringing a small bell at the same time by which the owner, who remains concealed near at hand, is warned of a capture, and he runs up, seizes his prey, and sets the cage again in another locality. In this way I have known twelve to twenty birds occasionally captured in a patch of thick, bushy jungle in the Carnatic, where alone I have known this practice carried on* (*Birds of India*, Vol. II. p. 596).

The Black-necked Hemipode of Madagascar (*Trogon nigrocollis*) is commonly caught by the natives by means of snares. Five or six boys start in company, carrying with them a certain arrangement in the form of a ladder, constructed of the stems of a species of palm. This contains a number of openings, each large enough to admit of the passage of a Hemipode. Snares, made from the leaves of the same plant, are attached to the openings. The fowls place their trap between two thickets, in such a position that the birds cannot cross from one covert to the other without passing through the snares. When this trap (which seems to resemble in form the funnel traps used to catch *Fringillus* in India) has been duly fixed, one of the leaders commences to imitate the call-note of the male of this Hemipode. His companions circle round the covert, and slowly approach the spot in which the snares are standing. As soon as the birds show a desire to cross over to the side of the fowler who is calling them the other lads close in a semicircle round the birds. The birds are taken by surprise and run into the snares. Almost all the birds taken in this manner are females. The natives sell the birds thus taken to the whites, but not before they have plucked the feathers out of their wings, which renders them useless for preserving. A curious superstition about the medicinal virtue of this bird still lingers in Madagascar. The feet of the Black-necked Hemipode are supposed to have a beneficial effect upon "*le mal au ventre*." For this purpose the legs of the bird are cut off, tied to a string, and worn near to the part affected.

[The headpiece of this chapter is reproduced from the first edition of Olliv's work.]



CHAPTER XII.—THE PHEASANTS OF EAST AND WEST.

THE PHEASANTS (*Phasianidae*) are so frequently decorated with brilliant colours, that the males are sought eagerly after in many parts of the world. The jealous and intolerant disposition of most Pheasants induces them to give combat to any rival that may chance to enter their own domain. The Chinese Bamboo-pheasant (*Bambusiphaeus sinensis*) is a small bird, hardly equal in size to an English Partridge, which it much resembles in general colouration. The Chinese are enamoured of the powerful cry or song of this bird. It is, therefore, caught in some numbers for the market. The Chinese fowler effects the capture of the Bamboo-pheasant by taking advantage of the well-known pugnacity of this bird and its Formosan ally. Mr Styan writes to inform me that on one occasion, when he was staying among the hills, a man turned up with a couple of these birds. They were kept in separate cages. He told Mr Styan that he used these tame individuals to decoy wild birds of the same species into a net. "The birds," writes Mr Styan, "are very pugnacious, and the challenge of a cock is immediately answered by any others in the neighbourhood. He gave me an illus-

tration of this. One bird was taken away out of sight, the other in its cage was completely hid under a pile of branches. The first bird was then released and began to strut about, uttering a loud challenge which was immediately answered. In a very short time the free bird had found the cage and a fierce fight took place through the bars. Since then I have frequently tried calling the birds myself, and have had the birds answer and approach through the cover, but when fairly near they either caught sight of me and uttered a false note which raised their suspicions."

Swinhoe has given another account of this Bamboo-pheasant; but in his experience the actual capture of the bird seems to have been effected by means of a trap attached to the cage of the call-bird. "The Chinese" he writes "listen for the challenge, and sets on the disputed hill a trap with a decoy within. The decoy is trained and sets up a reply. The lead and lark of the manner rush to the spot and run recklessly into the trap and are caught. The Horned Pheasants are a mountainous race, inhabiting the higher ranges of the Himalayas, the hills of Assam, and the wooded slopes of Southern China. They are shy and retiring in their habits, but of handsome plumage. The Crimson Horned Pheasant (*Tringopus interpres*) spends the summer months in thick, reed-like bamboo cover in which it would be almost hopeless to pursue the bird, but in the winter months the cover is less dense, and the natives are consequently able to effect its capture at the latter season. Captain Beaman informed Mr. Hume (*Gleanings of India*, Vol. 1, p. 149) that, in Sikkim at any rate, the usual plan for catching individuals of this beautiful Pheasant was to form a hedge of bushes about three feet high, extending down the sides of a hill like the sides of a triangle with the base left open. The sides are made to gradually converge until near the apex, where small gaps are left, in each of which a noose is placed. The birds are then slowly driven by men on foot, walking in line from and parallel to the base of the triangle, and towards its apex; the startled Pheasants are bent upon making good their retreat from the hunters, but being averse to escapist flight, they continue to run along the ground. On reaching the sides of the fence, they dash into the openings left for their attempted exit and are detained in the snare set for that purpose.

Mr. Duman assured Hume that the natives of the Naga Hills catch Blyth's Horned Pheasant (*Tringopus blythi*) by setting a line of snares across some ravine which is known to be a favourite haunt of these birds.

When the operation of setting the snares is finished, a semicircle of hunters proceeds to drive the Pheasants down to the place where the snares are fixed. The Nagus perform this piece of fowling as quietly as possible, as they must avoid alarming the birds too much, lest they should rise from the ground and fly away.

David states that Dr L'Huy's Moomal Pheasant (*Lophophorus L'Huyi*), a native of Eastern Tibet, is actively sought after by Chinese fowlers. These men effect the capture of this magnificent bird by means of snares (*collets*). The resplendent metallic plumage of the common Moomal Pheasant (*Lophophorus isidipus*) is in great request with plumassiers, indeed a large trade has long been carried on in the skins of the male birds. Most of the birds required for the European trade are shot; but Hume states that these grand Pheasants are trapped throughout the Himalayas during the winter months. The skins of these birds are worth five or six rupees, even to the villagers who effect their capture. The plan generally adopted for snaring these Pheasants is to set nooses for them. These are made of snow, gut, or of the fibres of one of the hall-nettles. These snares are set in the places to which the Moomal is found to be partial, and are arranged in openings between the rocks or bushes, sometimes in the intervals of an artificially constructed hedge. In certain districts, the local fowlers trap these Pheasants with Deadfalls similar to those used for taking *Cypripedium* in the north of Europe. The Moomal is crushed by the descent of a heavy block of wood. The Pheasant upon which the fowlers of Western Asia have most exercised their ingenuity is the so-called "common" Pheasant (*Phasianus colchicus*). The range of this species, in a purely wild state, extends from Corsica in the west to the region of Transcaucasia in the east. Mr W. H. Stuart of Batoum informs me that the peasants of the Caucasus take many of these birds in snares or springs, which are set in the runs of the birds. The arrangement of trap which Mr Stuart reports as still in common use was noticed just a hundred years ago by a Russian traveller. Pallas, whose illustration of the snare which he found in operation is reproduced at the head of this chapter, remarks that "the places overspread with reeds adjacent to the Terek and the Kuban, along the shores of the Caspian Sea, and the whole tract of the Caucasus, may be said to be the native country of the Pheasant. As it often happens that these birds impress their footsteps in the thickets which they frequent, they are caught by gins

The gun is fastened to an elastic rod (a) which is bent at the lower end, it is likewise tied round a small piece of wood (b) which, strained by the rod and some pressure a stick placed transversely (c) upon a bow fixed in the ground, so that it just keeps it in balance. On this transverse piece of wood several other smaller pieces (d) are placed across the path on which the snare is spread. As soon as the Pheasant steps on one of these sticks the square piece is pressed down by the weight of the bird. The small piece of wood (b) gives way, the elastic rod (a) springs up, instantly draws the gun around the legs of the bird and lifts it into the air so that it cannot possibly disentangle itself. Holmes gives a similar description of the snare set for both Pheasants and Woodcock by the peasants who live on the southern shores of the Caspian. They fix rows of short sticks in the ground and interweave them with twigs and grass so as to form a low netted fence about a foot high. In this a small opening is left across which is bent a plant stick with a horsehair noose at the extremity, this stick is held down in a curved position by a strong peg on the opposite side of the opening: the bird, in endeavouring to pass through this runs its head into the noose, and, in struggling releases the bent stick, which, springing up draws the noose tight and strangles the bird. The ground in some places was literally covered with these diminutive beds. The snare was totally concealed by the dry leaves and twigs scattered over it (*Sketches on the Shores of the Caspian*, p. 137). Mr W. H. Stuart informs me that the Pheasants of the Caucasus are often taken alive by means of small pitfalls. These are dug in the runs of the birds. Each pitfall has a depth of from twenty to twenty-eight inches, and the breadth varies from seven to fourteen inches. The pitfall is not left open. It is covered with a pair of trap-doors. These are placed on a level with the surrounding ground and are so nicely adjusted that, on the slightest pressure from above, they drop downwards and then spring back to their original position. The Pheasant is allured to the pitfall by a trained covey. The late Mr Hoare of Hereford obtained for me the additional information that it is only in the autumn that Pheasants are captured in these pitfalls. The birds are trapped in an ingenious way by the Tartars. They dig a hole in the ground, which they cover with two thin boards or bds hinged on a iron frame, attached in such a way that they fall inward with the least pressure and instantly spring back again. The trap is set in a place which the birds are known to frequent, and a

slight wattle-work is made on each side of the run to direct the birds on to the trap. A whole covey is sometimes taken in this manner."

The Pheasant does not enjoy immunity from persecution even among the swamps and tangled thickets of Corsica. The country people take relatively large numbers of Pheasants although this species is very local in their island. The Italian Consul-General informed Professor Giglioli in 1881, that from 150 to 200 Pheasants were annually trapped in the Canton of Gison. He added that these birds were taken in the same which he calls the "*Laccio ad archetto*," which I take to mean a spring snare, similar in principle to the various spring traps which are set with a plant snare and a horsehair noose in the runs of birds. Di Valli, writing in 1601, devotes Chapter XXVIII. to "*Modo di pigliar il Faisano con l'archetto*." He does not suggest a "*Laccio ad archetto*," but instructs us how to set hair snares like those used for catching thrushes ("*Laccioli di crini di cavallo fatti à similitudine di quella che si pigliano li Tordi*"). These are to be set in the run through the bushes which the cock bird tramples down when following his lady love. The hen may also be snared by the neck when sitting on the nest, though one blushes to record such a nefarious practice. The snare which Tempesta drew for Di Valli, presumably under the direction of the author, consists of three hair nooses suspended from a horizontal beam or piece of wood. The latter rests upon two upright stakes, which are attached to the horizontal piece of wood by crossbands of cord. The snare is figured as set between two bushes at such a height as to catch the unwary Pheasant by the neck. Olina tells us that in his day Pheasants were taken either by being snared in hair nooses fixed in their runs, or by means of the gun or crossbow.

Savi is at pains to inform us that the Tuscan peasants set snares for Pheasants on the edges of the ponds and fi borders at which these birds quench their thirst, as well as in stubble-fields and in the tract which these birds have made through the bushes and underwood. The "*Solitaire Inventor*" narrates that the French peasants bag Pheasants by setting snares in the footpaths of the birds. Pheasants generally feed upon corn from sunrise until eleven o'clock or midday, and in the evening from sunset until the departure of daylight. The fowler starts out back of day, and footpath wends his way to the woods. On reaching the covert he listens to the cries of the game. Having ascertained the

exact whereabouts of a bird, he proceeds to set two or three 'Collets,' in horsehair nooses, one of them level with the ground and the others about the height of the crop of the bird, so that the Pheasant cannot traverse this path without putting its head or foot into a snare. The fowler then enters the cornfield on the outside of the wood and by clapping his hands together or by striking two stones, he induces any Pheasants that may have been feeding in the stubble to run back for shelter into the wood. The Pheasants hasten to seek security in the coppices, and, as they endeavour to retrieve their foot-steps, are taken captive in the snares set for their detention. During the later hours of the day the French poacher sets his snares on the skirts of the wood which flank the fields of standing grain. I have failed so far to find satisfactory evidence that our English yokels have systematically ensnared Pheasants like their Gallic confrères. There can be no doubt that certain individuals have erred occasionally in a similar direction, but I fancy that the Anglo-Saxon is, or was, more ambitious of appropriating his neighbour's Pheasants under shadow of darkness than in the light of full-born day. This end can sometimes be achieved with small risk of discovery by the careful manipulation of a horsehair or wire noose attached to the extremity of a fishing-rod, or to that of a long sapling of stronger proportions and similar length.

History records that, in the year 1658, the magistrates of the County of Derbyshire were moved with a virtuous determination to suppress the unrighteous pastime of poaching. In accordance with this resolution they ordered the constables of their county to present all game-law offenders at the next quarter-sessions. Accordingly, at the Epiphany sessions that same year, the Belper constable did present Thomas Luke collector for strange beasts off a tax: *1658, Three Centuries of Derbyshire Annals*, Vol. II. p. 251. Whether this custom was ever as popular as the equally heinous enormity of suffocating the birds while at rest with the fumes of burning sulphur may well be doubted. Even the latter malpractice seems to have required considerable sleight of hand. But in England, no less than in different parts of the Continent, professed sportsmen long eluded to *wood* their birds as they perched in trees out of the reach of the dog which was employed to induce them to betake themselves to elevated resting-places. Francesco Monari observed in 1671 that, in Lombardy, the sportsmen of the day were accustomed to

shoot Pheasants over a reddish-coloured dog, its colour being chosen from its resemblance to that of a fox. The Pheasant, thus pursued by a rufous quadruped, supposed a fox to be upon its track. It therefore adopted the most natural opening to escape by taking refuge in a tree. The sportsmen then stalked and shot the bird. The galleries of the Louvre contain at least one fine representation of this variety of sports, so that the Italian custom must have crossed the Alps into France. Whether the custom of "marking" perching Pheasants really became popular on our own side of the Channel is more than I can safely decide with the materials at my disposal. Blount is not backward in describing the "Pheaching of Pheasants and Shooting of them." He warns "us to be provided with a good Spaniel, that will linge well about and when he hath Pheached the Pheasant, to bay soundly, which will cause them to keep the Pearch the better; then whereabouts hearing he is, make up to him as privately as possible, and having esquil him, tiding at a reasonable distance make your shot; and for your dogs encouragement, let him bring it to you, and make much of him. For your Dog, it may be either a Land or Water Spaniel, or one betwixt both provided he is trained up to a gun and to bring his Game to you" (*The Gentleman's Recreation*, Part II. p. 134). The alternative method of catching Pheasants which seems to have most widely prevailed in Europe is that described by Nodding and other medieval writers, according to whom two fowlers were usually employed in this pastime. One man excited the jealousy of the wild Pheasant by exhibiting a dummy Pheasant painted on a screen or piece of canvas, while his fellow took advantage of the temporary distraction of the bird to cast a net over it. Gerarde Markham is the writer who appears to discuss in fullest detail the taking of Pheasants with nets. He advises his readers to employ a Pheasant-call (which he forgets to describe), and thus to allure the birds to close quarters. The fowler then spread his nets over the tops of the lowest shrubs and bushes. One end of the net is fastened down to the ground, the other is attached to a long line which the fowler holds in his own hand, "by which when any thing strageth it,—you may draw the net together." A merely alternative is to set nets across the "little pades" and "wyes" which the Pheasant pootes "have made and pulled in the woodes (for they will make little tracks almost like sheep tracks)." When the pootes have collected together, the fowler makes a noise by striking the

bushes with an instrument which some fowlers do call a *Driver*, being made of good strong white wands or *Oyers*, such as basket-makers do use being set fast in a handle and in two or three places twisted about and bound with other wands." The fowler who engages in driving young Pheasants is advised by Markham to wear over his face a hood of some light green stuff, nearly the colour of the leaves, having only loop-holes for the eyes and nostrils. "And also about your head if you wear a wreath of Oaken leaves, or other leaves, it will be very good, and will take up the eyes of the birdes from greater suspitions, as also if you trym and hang your garments with branches and leaves, it will be very available and bring your worke to effect sooner and better."



THE DRIVER (after Markham)

The "*Solitaire Inventif*" devotes Chapter XV. of the second book of the *Revue Parnassique* to explaining how Pheasants can be taken in one cover and transferred to another. The method to which this writer gives the first place requires the use of two staked nets or "*Halliers*."

Before fixing these engines the fowler is advised to pick out a spot in the wood to which the wild Pheasants are in the habit of resorting. He is to be guided in the discovery of this by the crowing of the birds in the morning and by the droppings which are to be detected on the runs which they follow through the underwood. When the right spot has been selected, the fowler is advised to look out for a tree which is easy to climb and commands a good view of the adjacent runs of the Pheasants. When the fowler has satisfied himself as to the suitability of the spot, his next task is to gather the birds together by feeding them. So he scatters grain about their path, and is careful to leave five or six handfuls in a heap in a place where the tracks of the Pheasants converge upon one another. When it is ascertained that the Pheasants have taken to this artificial feeding, the fowler inaugurates netting operations, which commence at break of day. The fowler erects his stake-nets each from

or five feet in length, across the little track which leads to the principal feeding-place. This accomplished, he ascends the tree in which he is to keep his solitary watch. He receives the caution that he must be perfectly still, or he may alarm the Pheasants. The birds come running along their customary road suspecting no danger. Indeed, the first bird which finds the man (which the fowler is careful to throw down) will call his rivals and followers together. As he traverses the familiar track he finds his progress barred by the net, in which he is destined to remain a prisoner. One must be taken to extricate the first bird caught from the net for fear that he should alarm the rest by his outcry. If the large stake-nets prove too cumbersome for convenient manipulation, smaller pocket-nets may be used instead. These are provided with rings at the corners, through which rods can pass. The fowler must in this case cut some switches, five or six feet long, and no thicker than the fourth finger. The ends of these switches are sharpened, that they may be inserted firmly into the ground. The plan of operation is to fix the two ends of one of these sticks into the soil on each side of a Pheasant's run, bending the rod into the shape of a bow. A pocket-net is then attached to the switch at the two sides and also in the middle. When a series of these pocket-nets are set across the Pheasant-runs, the birds have little chance of making their escape.

Fowlers of different nationalities have unanimously agreed to take advantage of the belliose disposition of the Common Pheasant. Holmes states that the Persian fowlers use a common fowl as a decoy for any numerous flock and which they may happen to come across. "In the breeding season the native sportsman ties a common hen to a tree in the jungle, and concealing himself among the bushes, pulls occasionally a long string attached to the bird's leg to make it flutter, the cock Pheasants, if there be any in the neighbourhood, are soon attracted to the spot and shot by the fowler from his retreat." In the days when north-country lords openly patronised the sport of cock-fighting, it was not an uncommon practice to turn down a spirited gamecock in the covert of some local squire who prided himself on his well-stocked preserves. The wild Pheasants were by no means loth to accept the challenge of the intruder. No doubt they made a brave defence, but the combat was a sadly unequal one. Mr Scott Skirving tells me that he perfectly remembers the time when to take Pheasants by means of

specially prepared peas or beans was an ordinary incident. The poucher soaked the peas until they were soft, and then bored a hole through each pea with a needle. A single horseshoe was then passed through the centre of the pea, and the ends of the hair were cut off, only about half an inch of hair being left on either side of the pea. The "doctored" peas were strewed in the fields in which the birds were in the habit of feeding overnight. When the Pheasants went to feed at break of day they eagerly swallowed the tempting bait, which became fixed in the gullet and thus incapacitated the unfortunate birds from making good their retreat. The Persian hunters kill Pheasants at their roost by knocking the peas into the branches on which they are sleeping with long sticks.

The Ring-necked Pheasant (*Phasianus torquatus*) is even better known in British coverts than the Common Pheasant so called, but it was unknown in Europe in the days of old-fashioned fowling. Godlewski states that in Eastern Siberia the Pheasants gather in the cultivated fields on the arrival of winter, and alight in troops on the stacks of corn. The birds are so suspicious that they perfectly understand how to avoid the snares which are set for them. The Chinsamen take the birds, nevertheless, by springs, which are set in the stubble-fields, each trap being baited with a bean and carefully covered up. I have to thank Mr Steyn for a model of the spring or snare which he has seen set for Pheasants in the vicinity of Shanghai. The details of the trap are not always the same, though the divergences from the type now described are unimportant. The Chinese coolie selects an elastic switch, one end of which he inserts in the ground near a Pheasant run. He attaches to the free end of this rod a line which ends in a running noose. A short piece of wood is tied to the line at a distance of a few inches from the end of the rod. Another switch is sharpened at both ends and inserted into the ground. The long switch is then bent down until the short piece of wood attached to the line can pass under the cross-piece which is fixed in the ground. The snare is spread in the run of the bird, and the trap is ready. As soon as a Pheasant happens to set its foot inside the noose it begins to struggle and thus tightens the noose. The effort of the bird disturbs the catch, and the long switch is set free. It, of course, springs back and the bird is held. This device differs very little from that figured by Pallas as used for capturing the European Pheasant, which

again is similar to the "squin" used in England for catching Woodcock.

The Japanese have now adopted the European method of shooting the green Versicolor Pheasant (*Phasianus versicolor*) and the other Pheasants indigenous to their country over dogs, but they still practise the national custom of taking these birds by means of nets. The net in general use is the "Muso" net. The size of the net is adapted to the special purpose for which it is required. The fowler takes the eggs of the Pheasant and hatches them artificially. The young birds are reared in captivity. When the fowler desires to catch some wild Pheasants, he chooses some locality in a quiet valley, or on the hillside, to which many Pheasants resort. Having arranged his net in a suitable spot, he takes a tame cock Pheasant and tethers it in the centre of the fowling

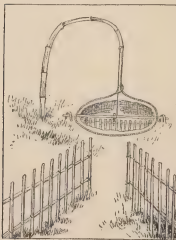


PHEASANT NETTING IN JAPAN.

floor. He constructs a low fence of reeds or straw as a shelter behind which he can hide, and secures a hen Pheasant close to his retreat. The female Pheasant soon arouses the anxious susceptibility of the male bird, which is close at hand. The latter then begins to crow and thus arouses the jealousy of any wild cock Pheasant which may happen to be in the

vicinity. Whenever a fire-bird joins company with the male decoy, and is thus induced to venture within reach of the net, the fowler seizes the opportunity of pulling the cord attached to the net, and thus brings the folds of the net over the coveted prize.

The Japanese fowlers are expert at catching Pheasants in snares of the kind shown in the accompanying illustration.



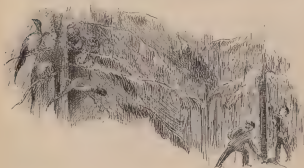
JAPANESE PHEASANT SNARE.

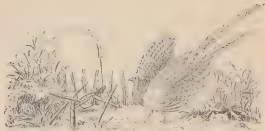
The birdcatcher sets to work to find the runs of the Pheasant, along which he constructs small wattled fences leading up to the snare which is set just outside the run. He excavates a small circular hole or well in the earth at the end of the little fence which conducts the bird up to the trap. In this little pit is planted a row of small sticks of uniform height, all connected together, and only a small space apart. Two pliant switches, sharpened at both ends, are bent to form two small hoops, and are pressed into the ground on each side of the pit. A horizontal stick is placed across the pit, by means

of a string which carries a small notched piece of wood at its extremity. The upper end of this string is tied to the bamboo which carries the snare. When the trap is set, the bamboo, with the snare firmly fastened to its upper end, is bent over; the string is kept in a strained position by means of the piece of wood, which catches in a corresponding notch of the

horizontal piece of wood, which is thus pressed upwards against the two hoops at either side of the well. When a Pheasant runs along the path on which the snare is set, and finds that it is prevented from running to the right or left by the wattled fence, it seeks to leave the run by the opening which it finds at the termination of the track. As soon as the Pheasant emerges from the run, it treads upon the horizontal piece of wood which lies across the well. The weight of the bird depresses the cane on which it treads, and thus the small piece of wood which keeps the string tight is released. The bamboo naturally springs back and carries upwards the snare, which is thus drawn tight round the foot of the Pheasant. In country districts, the Japanese peasants sometimes shoot Pheasants from small huts, attracting the birds within range by means of a decoy-bird which is fastened to a peg in the ground by a string tied to its leg.

[The headpiece of this chapter is a representation "of the manner in which pheasants are taken by means of gins, in the sedge thickets, on the banks of the Kuma and Kuban." It is reproduced from the vignette accompanying Ballou's *Tripods through the Southern Provinces of the Russian Empire* (Vol. 1, p. 279).]





CHAPTER XLII. ANGLO-PHEASANT AND JUNGLE-FOWL.

OUR domesticated and tamed kind of poultry appears to have been derived directly from the common Jungle Cock (*Gallus ferrugineus*) which is well known to Anglo-Indian sportsmen. The range of this bird in a perfectly wild state extends from the north-east and central districts of India to the Malay Peninsula, Ceylon, China, and Hainan; it is also indigenous to Sumatra, Java, Celebes, and the Philippines. It seems to be sought after everywhere by native fowlers. Colonel Bingham has most kindly taken the trouble to bring to England for the use of this work the snares which are employed to effect the capture of this Jungle Cock in Burma. He writes to me that "Burmanas, Talungs, Karens, and Tangthons in Burma and Tenasserim, and the knoched Shan and Khmú tribes in Siam, use snares for the capture of Pheasants, Jungle-fowl, Pigeons, and other ground-thrushes, and even for squirrels and hares, all of which are looked upon indiscriminately as articles of food. The snares used are, so far as I have seen, all of one pattern, differing only in being larger and of stronger make for Pheasants and Jungle-fowl, and slighter and more delicate for the smaller birds. The snare is made up of three parts: (1) the bamboo peg which is used to insert the snare in the ground; (2) the spring, which is also made of bamboo, this is tied firmly to one side of the ground peg; (3) the mouse, which is made of strong cord. The cord in question is made out of the fibrous bark of the Shaw tree (*Shorea robusta*) which is universally used by the jungle tribes of Burma

for making cordage, from ropes that will hold an elephant to the finest twine. The cord which is used for securing game is about the thickness of whip-cord, and has a plaited ring of fine bamboo work tied on to the end of it, through which the other end of the cord is run to form the noose."

The two sets of snares which Colonel Bingham has sent to me appear to be identical in every particular, except that in one case the ground pegs are made from a darker wood than that used for the other set. The ground pegs all measure about four inches in length, and are furnished with the same double notches, cut deeply into the wood for the purpose of securing the wood firmly. The slender splint of bamboo which gives elasticity to the snare measures about eight and a half inches. The diameter of the snare, when set, appears to be about four inches. Colonel Bingham remarks that both the Jungle Cock and the Vermicellated Kalij



VERREAUX'S PHEASANT SNARE.

Pheasant (*Verreaux's lineatus*) are taken in the same two ways. One plan is to tie from eight to sixteen of the snares on a string at regular intervals, so as to form a chain, and to fix this in semicircular form outside a gap left in a low fence from six to ten inches in height, carried a couple of hundred yards or so across the jungle. It is successful owing to the

eminent disinclination that ground birds have to fly over any obstacle like a fence. A Pheasant, Junglefowl or Pouter will run for hundreds of yards along a fence a few inches high, looking for a gap, rather than fly or hop over it. Junglefowl, Pheasants, and Pouters drink as a rule twice in the day, viz., in the morning about 6 a.m. and again from 4 to 5 p.m. They do not use exactly the same runs, but come down from the jungle to the water within a few yards of the same spot day after day. The natives note these spots and construct their fences across the jungle more or less parallel to the water, leaving suitable caps studded with the snares.

The second method is applicable only to the snaring of Pheasants and Junglefowl, the males of which are eminently pugnacious, especially in the breeding season. The hunter selects a decoy Pheasant or Jungle Cock, and from twenty to fifty snares. With these necessities he proceeds to the jungle either in the morning or in the afternoon, for all game-birds in Burma feed but little in the heat of the day, preferring to roost in clumps of bamboo or in shady trees from 9 a.m. until 4 p.m. The hunter selects a suitable spot for bowling, generally on the top of a little rising ground, and takes the decoy Pheasant or Cock to a peg driven firmly into the ground by means of a string which is tied to one of the legs of the bird. The ground around the captive is thickly set with snares for a diameter of from three to five yards. When the hunter has completed his arrangements he withdraws to a distance of one or two hundred yards and either climbs a tree, or lies in ambush on the ground. A good decoy if a Cock, will crow, and if a Pheasant will drum, every few minutes. The wild birds accept the challenge and rush to give battle, but are inevitably caught in one or more of the nooses before they can approach the decoy. The pegs of the snares, being dragged out of the ground, catch in the surrounding undergrowth, and the struggling birds await the mercy of the hunter, who can come up and despatch them knowingly. Colonel Bingham has only once seen a hen caught in this way: she had possibly strayed from her party, and, being attracted by the crowing of the Cock got herself caught. More than one Pheasant is very seldom taken in a morning. Colonel Bingham has seen three Jungle Cockesnares in a couple of hours. In the case of the Pheasant, the decoy is invariably a tamed bird which had been itself caught at some earlier period. The decoy Jungle Cock is generally a half-bred bird, or one who has hatched in captivity from an egg taken in the jungle.

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Let them fly out
 and take two or three
 from d to h pass. They
 move from the jungle to the
 edge of the jungle more or less
 settled with the staves
 and fly to the summit of the summit
 and eventually join and eventually
 and fly to a decay Phalarope of jungle
 With these various species he proceeds
 and fly to the summit, for all summer to
 the edge of the day, preferring to roost in
 the edge from 9 a.m. until 1 p.m. The
 Phalarope generally on the top of a little
 Phalarope or cock to a peg driven
 of a string which is tied to one of the
 and the Phalarope is thereby secured
 to five yards. When the fowler has
 follows to a distance of one or two
 and lies in ambush on the ground
 and if a Phalarope will jump, every
 up the challenge and rush to give
 one or more at the nose & before
 the edge of the snare & being dragged out
 and fly undergrowth, and the struggling
 and come up and despatch them
 and when caught in this way,
 by the Phalarope and, being attracted by the
 and then one Phalarope is
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 and the Phalarope, the
 and the Phalarope



In Sumatra, the natives employ as a decoy a Jungle Cock that has become domesticated, generally a laid bird between a wild Jungle Cock and a tame hen. Professor Veth remarks (*Sumatra Royal*, p. 420) that in some parts of that island the Jungle-fowl are taken by means of snares. These bear considerable affinity to those which Colonel Bingham has brought for me from Bunnah. The snares are ranged in a circle round the open spot in which the fowl take their pleasure. The decoy is placed in the centre, secured to a peg fastened in the ground by a string. The fowler watches the movements of the wild birds from behind a screen of leaves and shrubs, which is called "Munika." Another device practised in Sumatra is to set springs at intervals in the runs of the wild cocks. These traps are similar to the engine which Veth ascertained to be commonly employed in Sumatra for capturing the Argus Pheasant (*Argusianus gigas*). The snare intended for the latter species is set in one of the little paths which these birds follow, when they desire to visit the spots which they use as playgrounds and for fighting their rivals. The fowler who aspires to capture the Argus, first decides the run which the Pheasant is most likely to pass along. He next arranges a number of pieces of wood or cane on each side of the run, so that the Pheasant may be deterred from any attempt to leave the run. He then plants in the earth a strong and elastic bamboo, which is fixed at a suitable distance from the track of the Argus. The string which is to serve for the snare is tied to the fine end of the long bamboo. The cord in question is kept in the required position by means of a small wooden peg, which presses against an angled piece of cane, the ends of which are planted in the ground. The loop of the snare is supported by an oblong ratan ring, called "Lapi." This ring rests in turn on the small wooden catch, and on the peg which is driven into the ground on the opposite side to the long cane. Two wooden crosses or laths are placed on each side of the trap, so that the Argus is compelled to raise one of its feet in order to cross the obstacle. The bird is thus obliged to tread on the ratan ring, when its weight releases the catch. The long bamboo springs backwards, and carries with it the snare in which the Pheasant is held captive. The late Mr W. Dawson stated (*Story Feathers*, 1878, p. 428) that the Argus is comparatively common in the evergreen forests of Tenasserim, where he saw these birds almost daily. He found that each male Argus chooses some open level spot, sometimes in a dark gloomy ravine shot in

by cane breaks and rank vegetation, sometimes on the top of a hill where the jungle is comparatively open. From the ground so selected the bird remains very dead beat or tame. These cleared spaces are used as dancing grounds, but the bird spends all the day in them, except when feeding or drinking. The Argus never rises on the wing, even when pursued by a deer if it can possibly help it. It much prefers to outstrip its enemy by the fleetness of its running powers.

When a Fowler has ascertained the precise whereabouts of the play-ground of a male Argus, the task of trapping it is chiefly a work of patience. The easiest way to secure the bird is to plant a low fence of cut cane round the spot, leaving four openings or gaps of just sufficient breadth to enable the bird to pass through. The Fowler makes use of each of these openings to set in it a snare attached to a plant sapling. The latter is bent down and kept in place by a suitable catch. So far as I can judge, the snare used in Tenasserim is similar to that of Sumatra, although employed in a different manner. Mr Davison mentions another device by which the Argus is obtained. "This is to erect two small posts about four feet high and three feet apart, in the birds' clearing, across the top of which a bar is firmly fixed; over this bar a string is run, by one end of which a heavy block of wood is suspended, just under the bar while the other end is fastened to a peg lightly driven into the ground immediately beneath the block. The bird commences as usual to clear away the obstruction, and soon manages to pull up the peg. The heavy block, being thus released, falls and crushes the bird." A singular device for compassing the destruction of the Argus Pheasant is adopted in Burma as well as in Tenasserim. It is based upon the intolerance which the Argus displays towards anything which interferes with free progress over its favourite playground. Mr Charles Hase, F.Z.S., has most kindly sent me an example of the trap referred to. It is called 'sanda' by the natives of Burma. It consists of two sharp knives made of bamboo. These measure about seven inches in length, and are set in the ground with their blades crossed. The two upper extremities are bound together with cane by means of notches, which serve to make the attachment secure. These knives are flat and smooth on their upper surface, but the lower edges of both the blades are sharpened, so that the cutting power is keen. When the Argus finds the knives fixed on the ground which he regards as his own territory, he seeks to remove the

offending object by twisting his neck round one of the blades from beneath. In the effort to grab up the blades the bird unwarily cuts his own throat. Davison appears to describe a very similar kind of cane-knife (*Stray Feathers*, 1878, p. 428). This is a bit of bamboo, about eighteen or twenty inches long and a quarter of an inch wide, shaved down until it is the thickness of writing-paper, the edges being as sharp as a razor. This narrow, pliant piece of wood ends in a stout sort of handle six or eight inches long which has firmly driven into the ground in the middle of the cleared space. The bird scratches and pecks at it, but finding all its efforts to remove the knife in vain, it twists the narrow pliant portion several times round its neck, and taking hold of the bamboo near the ground with its bill, it gives a sudden spring backwards to try to wrench it up; the consequence is that its head is nearly severed from its body by the razor-like edges of the bamboo.



FIGURE 1. A BIRD OF THE ARGUS PHEASANT.

Another typical species of Pheasant is the pretty little Peacock Pheasant (*Polyphasian chinensis*). Although this bird has lived very freely in the Zoological Gardens, it is indigenous to the Indo-Chinese countries, ranging from N.E. India to Sikkim, and eastwards to the Laos Mountains. Mr. Inghs wrote to Hume from North-East Cachar: "The Kookies make numbers of the *Polyphasian* on their jagged or cultivated clearings inside the forests. The snare consists generally of a sapling or branch of a tree, bent towards the ground; one end of a piece of string is fastened to the sapling, and on the other end is a noose. The noose is spread round a small hole in the earth. The trap itself is a simple contrivance of a few split pieces of bamboo; the bait is a small red berry of which the bird is very fond. The berry is firmly attached to the trap, and the bird in pecking at the berry releases the catch; the sapling flies up, and the bird is noosed by the neck or feet, or sometimes by both" (*Game-Birds of India*, Vol. I p. 107). It is chiefly male birds which are captured by this method.

In many parts of India the Peacock (*Pavo cristatus*) enjoys immunity from persecution on account of its semisacred character. But there are certain districts in which the bird is sought after by the fowler. Mr Littlehale writes to inform me that the Wagu of Kinsla are in the habit of snaring Peafowl by the leg in the "sheds," or grassy, unploughed edge of a tilled field. The feathers of the Peacock are used in wedding processions and have also a commercial value. So, though the birds are considered to belong to the goddess Sarasvati, the Wagus and other low-caste Hindus will not waste such good meat as a "Gazet turkey" affords if they can quietly transfer the bird to the cooking kettle. Mr Littlehale has kindly procured for me a set of the snares used by the Wagu for catching Peafowl. This bundle of snares consists of fifteen large running nooses, strongly plated, and having a diameter of about five inches. Each noose is mounted on a splint of bamboo, by which it is firmly attached to a wooden peg. The pegs are from four to five inches long and have a notch cut at the upper end to secure the noose. The lower end of the peg is sharpened to a point in order that it may be easily inserted into the ground. The fifteen nooses are mounted on their respective pegs, which are connected together by a long cord. Each snare is set at a distance of about ten inches from the next. Mr Littlehale reports that the Wagu of Kinsla set these snares for Peafowl in long grass at the edge of cultivated fields. The snares are set in a line, each noose slightly overlapping the next to it. Mr J. S. Grove, of the 1st Bengal Infantry, tells me that, in the Madras Presidency, the native fowler employs a decoy Peacock to entice its wild brethren, though the fowler is himself an adept at reproducing the cry of the bird. Grain is strown on the ground, and numerous hair-trigger snares are pegged out all round the decoy.

The Peacock is too large a bird to be conveniently stowed away in a bag, so the native deprives any bird that he catches of all desire to escape by putting a few stitches in the eyelids. The bird then becomes perfectly quiet, and is exposed in this helpless plight in the bazaar. Jungle-fowl are taken in the same way, and are also blinded. The Guinea-fowl (*Meleagris*), which form such an important section of the African game-birds, are taken by snares. Mr Thomas Ayres writes to me that, along the Omoosile River, the natives make long stretches of low fences, about eighteen inches high, composed of prickly mimosa

branches, providing spaces at intervals for the Guinea-fowl to pass through. At these openings are placed one or more snares made of stout string manufactured by the natives from the bark of a wild fig tree.

Many birds are taken in this way. The lines of fences are placed at about right angles to the banks of the river, along which the birds roam in search of food. Very similar to the device just described is the measure adopted by the natives of Madagascar, when they desire to obtain specimens of the Mitred Guinea-fowl (*Nasida cornuta*).

Pollen says that the island-hunters cut a certain number of branches bearing leaves, and lay them in piles in a straight line, in such a way that small openings

are left between the piles at regular intervals. They next fix a pair of pegs in each of these gaps, and suspend a noose between them. Rice is then strewed on each side of the openings. The branches form a rough hedge, varying from two to three feet in height. The fence extends for about twenty metres. For this distance the birds can find no means of crossing the barrier except by passing through one or other of the apertures set with snares. The natives catch numbers of these birds, which sell for two francs each.

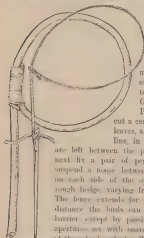


FIGURE 1. SNARE TRAP.

The Wild Turkeys (*Melagris*) of the New World are too delicate in flavour to escape the attentions of sportsmen. I imagine that nowadays these birds are almost entirely obtained with the gun. It was not always so. Both Alexander Wilson and his contemporary, Audubon, describe the old-fashioned plan of taking Wild Turkeys (*Melagris americana*) in "Pens," but the latter gives the fullest particulars. He says that the birds were kept under observation prior to fowling operations being adopted. The "Pens" were then set in the woods in the vicinity of the favourite roost of these birds. The "Pen" was constructed

in the following manner:—Young trees of four or five inches in diameter are cut down and divided into pieces of the length of twelve or fourteen feet. Two of these are laid on the ground parallel to each other, at a distance of ten or twelve feet. Two other pieces are laid across the ends of these at right angles to them, and in this manner successive layers are added, until the fabric is raised to the height of about four feet. It is then covered with similar pieces of wood, placed three or four inches apart and lashed with one or two heavy logs to make the whole firm. Thus done, a trench, about eighteen inches in depth and width is cut under one side of the cage, into which it opens slantingly and rather abruptly. It is continued on its outside to some distance so as gradually to attain the level of the surrounding ground. Over the part of the trench within the pen, and close to the wall, some sticks are placed, so as to form a kind of bridge, about a foot in breadth. The trap being now finished, the owner places a quantity of Indian corn in its centre as well as in the trench, and, as he walks off, drops here and there a few grains in the woods sometimes to the distance of a mile. This is repeated at every visit to the trap after the Turkeys have found it. Sometimes two trenches are cut, in which case the trenches enter on opposite sides of the trap and are both strewn with corn. No sooner has a Turkey discovered the train of corn, than it communicates the circumstance to the flock by a 'chuck,' when all of them come up, and searching for the grains scattered about at length come upon the trench which they follow, squeezing themselves one after another through the passage under the bridge. In this manner the whole flock sometimes enters, but more commonly six or seven only, as they are alarmed by the least noise, even the cracking of a tree in frosty weather. Those within, having gorged themselves, raise their heads, and try to force their way through the top or sides of the pen, passing and repassing on the bridge, but never for a moment looking down or attempting to escape through the passage by which they entered. Thus they remain until the owner of the trap arriving closes the trench and secures his captives. I have heard of eighteen Turkeys having been caught in this manner at a single visit to the trap. I have had many of these pens myself, but never found more than seven in them at one time. One winter I kept account of the produce of a pen which I visited daily and found that seventy-six had been caught in it in about two months" (*Old Bage*, Vol. i. p. 13).

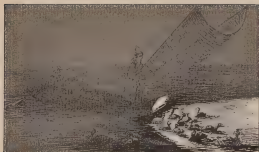
Wilson gives a similar explanation of the "Pen" for Turkeys, from which it is certain that the method which he was acquainted with was the very same as that which Audubon practised. Wilson adds that the Indians used the tails of the Wild Turkeys as fans: "the women weave their feathers with much art on a loose web, made of the rind of the larch-tree, arranging them so as to keep the down on the inside and exhibit the brilliant surface to the eye." Audubon was also in the habit of shooting the Turkey cocks in the spring of the year, by "calling" them with a bird-whistle made of the humerus of a Turkey. The art consisted in drawing the air through the pipe in such a way as to imitate the voice of the hen Turkey, on hearing this, the male bird approached within gunshot, when his fate was sealed. I believe that this method of "calling" Turkeys is still in vogue.

Wilson remarks that the American sportsman of his day often discovered the roost of Wild Turkeys by imitating the cry of the Barred Owl, to which the Turkeys would reply with a gobble. The birds could thus be approached about daylight, and easily shot. Another popular game-bird in the United States is the Californian Quail (*Lophortyx californicus*), the beauty of which renders it a favourite with most people, independently of its admirable sporting qualities. Dr Hasell wrote to me from British Columbia in January 1895, to report that "till the severe weather of two winters ago, the lads on the farms round Victoria were in the habit of catching up the Californian Quail in large quantities, in a large cage trap made of laths baited with oats or wheat and set in the snow. I am sorry to say that a great number of these birds, which do not stand cold well, perished in that winter. They were originally introduced from California some ten years ago, and had multiplied exceedingly." In answer to my further inquiries, Dr Hasell informed me that the trap referred to was built on the principle of the old Brick-trap. "The lid like that of a cage-trap is hinged and weighted, and falls when a sufficient number of Quail tread on the perch which is placed above the entrance to the bait. The sides and top are made of common laths or split cedar stakes."

In the Eastern States of America the popular game-bird is the Virginian Colin or Quail (*Oryz. virginianus*), which the settlers of earlier days dignified by the name of "Partridge." The popular title of the species is plain "Bob White," a sobriquet suggested by the call-note of

the male. Alexander Wilson assures us that in his time many of these birds were trapped in hard weather. "Traps are placed on almost every plantation, in such places as they are known to frequent. These are formed of barks or thindy split sticks, somewhat in the shape of an oblate cone, laced together with cord, having a small hole at the top, with a sliding lid, to take the bird out by. This is supported by the common 'figure of four' trigger, and grain is scattered below and leading to the place. By this contrivance, ten or fifteen have sometimes been taken at a time." (*Ibid.*, Vol. II, p. 226). Audubon gives a pleasant picture of the pastime of taking this species in Tunnel-nets, a form of amusement which we may reasonably conjecture had been introduced into the States by French colonists. In Audubon's experience it was a common thing for a number of sportsmen to gather together, all mounted, and drive Virginian Quail into the Tunnel-nets. "The success of driving," says Audubon, "depends much on the state of the weather. Drizzly rain or melting snow are the best, for in such weather, Partridges will run to a great distance rather than fly; whereas, if the weather be dry and clear, they generally take to wing the moment they discover an intruder, or squat so that they can not be driven without very great care. Again, when the flocks are found in the woods, they run off so briskly and so far, that it is difficult for the net-bearer to place his machine in time. The net is cylindrical, thirty or forty feet in length by about two in diameter, excepting at the mouth or entrance, where it is rather larger and at the extremity where it assumes the form of a bag. It is kept open by means of small wooden hoops at a distance of two or three feet from each other. The mouth is furnished with a semicircular hoop, sharpened at both ends, which are driven into the ground, thus affording an easy entrance to the birds. Two pieces of netting called 'wings,' of the same length as the cylindrical cone, are placed one on each side of the mouth, so as to form an obtuse angle with each other, and are supported by sticks thrust into the ground, the 'wings' having the appearance of two low fences leading to a gate. The whole is made of light and strong material" (*Ibid.*, *Esays*, Vol. I, p. 391).

[The headpiece is based upon a lithographed drawing of a trap for the Argus Pheasant, for which I am indebted to the kindness of Professor Veth.]



CHAPTER XLIII. RAILS AND GALLINULES.

THE Rails (*Rallidae*) are widely distributed. Some members of the family are found in almost every part of the world, even on remote islands in the Pacific. These birds attract little notice by reason of their skulking habits. The last known of the family is the Land Rail (*Oxyra pratensis*), which country folk dub the "Corn Crane" or "Dakshen." The peasants of Normandy call it the "Râle des genêts." In Alsace it is known as "Rai des Gailles," which changes into "Wachtelkönig" when we enter Germany. If we cross the Alps into Italy this common bird again meets us as "Be di Quaglio." Gesner was informed that the bird known as a "Rai" or "Rai" in England was shared in our cornfields—"inter segetes capi"—(*De Avibus*, Lib. iii. p. 498). He alludes to this species likewise, when referring to a certain bird endowed with a vociferous call ("obstrepens voce mirabili"). He mentions this bird as the "*Trochilus terrestris*," which the Teutonic fowlers lured to destruction by drawing a knife across a dry piece of wood. The call-note of this Rail can easily be imitated by passing the edge of a thumb-nail or piece of wood briskly along the line of the points of a comb. But the instrument generally preferred in the north of England for decoying Land Rail within shot on their arrival in spring consists of a kind of rattle which is

formed by three pieces of wood. The longest of these measures thirteen inches in the specimen before me. The lower end of it has been smoothed and rounded to serve as a handle. The upper end is cut out to a depth of two inches to admit of the insertion of a wooden cog-wheel, about two inches in diameter. This is fixed in the handle by a screw upon which the wheel revolves. A flat piece of wood seven inches in length, has been firmly screwed to the upper surface of the handle in such a way that the free end overlaps the wheel for about half an inch. When the fowler wishes to reproduce the cry of the Land Rail he draws the under-surface of this appliance across his thigh. The sound thus produced by an expert fowler is so excellent a reproduction of the call of the Corn Crane, that success is certain if any male birds are in the neighbourhood.

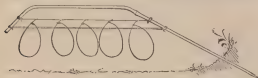


FIG. 1. WOODEN CALL.

Mr W. Mackenzie, the owner of the instrument just described, assures me that he killed numbers of these birds by employing this wooden comb or rattle to lure the birds within shot. The rapidity with which the Corn Crane runs through the grass has suggested the French proverb, 'Il court comme un râle.' The sportsmen of that country sometimes indulge in the amusement of setting low staked nets called 'Hollers' across the fields and along the banks of ponds in order to intercept the passage of these birds as they roam their way through the dense undergrowth. Indians both shoot Land Rails and take them in snares.

The Ruby Crane (*Grus erythrogeranus*) appears to be as familiar a visitor to the Japanese Islands as is the Land Rail to most parts of Europe. Professor Ijima reports that this small Crane abounds in the meadows of Japan during the summer months. The birds mate he says, during June and July. 'It is during this period that they are caught by means of snares and afford much amusement to birdcatchers.' The snare to which allusion has just been made consists of a series of five running nooses made of a few strands of dark horsehair. These nooses are

suspended in a row from a cord of horsehair, which is stretched tightly beneath a bent piece of bamboo, as shown in the figure. The nooses are



JAPANESE SNARE FOR BUDDY CRANE.

kept in their proper places by two parallel lines of thread, which are fastened to the bamboo. The bamboo measures about twenty inches. The lower end of this rod has been sharpened, in order to admit of its being easily inserted into the ground. The fowler uses this snare in conjunction with a bamboo pipe. This is a little cylinder of wood, only two and a quarter inches in length.



PIPER OF BUDDY CRANE CALL.

It is quite smooth, and a hole about the size of a pea has been bored in one side. When the fowler wishes to use this engine,

he closes one end of it with his thumb, and the other end with the middle finger. He then blows softly into the middle of the call: "*Pee-pet pee-pet pee-pet*," calling slowly at first, but gradually increasing his pace. The bird always responds to this challenge from the fowler. It is therefore easy to ascertain the presence of a Buddy Crane in any particular rice field or patch of rushes. The fowler then proceeds to set about a dozen of his frames of snares in the tracks through the grass which he expects the Crane to traverse. He conceals himself and begins to call in earnest. The Buddy Crane soon approaches the fowler and runs round him in hot pursuit of its imaginary rival. If it disappears from view for a moment into fresh cover, it is only to emerge again a moment later to renew the search. These actions are repeated until the Crane unwittingly inserts its head into one of the numerous nooses intended to effect its capture. Professor Ijima informs me that so far as his own personal experience is concerned, only male Cranes are caught in

the manner here described. He has been assured by experienced bird-catchers that female Crakes sometimes fall victims to the strategy which proves fatal to so many of their mates.

The Spotted Crake (*Poeyson's marasma*) is seldom captured in this country except by the accidental good fortune of a well-trained dog. It is often taken with snares in the marshes of Tuscany. The same fate awaits the Water Rail (*Rallus aquaticus*) in spite of its retiring disposition. Mr. Home observes that the Indian form of this bird is captured in the vicinity of Columbia by means of snares. These guns are made of horsehair, and are set upon the narrow banks which divide the rice-fields.

A near ally of our European Spotted Crake is to be found in the Carolina Crake (*Poeyson's carolinensis*) of the United States. This bird colloquially known to sportsmen as the "Sora Rail" is so abundant in the reedy swamps of the Atlantic States that tens of thousands are killed every fall during the southern migration. Wilson informs us that prodigious quantities of this Rail used to be killed in Virginia in the following way. The fowlers provided a light canoe and selected a dark night for the spot. When evening came, a kind of iron grate filled with fire was fixed on a stout pole like a mast in the centre of the little craft. "The person who manages the canoe is provided with a light paddle, ten or twelve feet in length, and about an hour before high water, proceeds through the reeds, which he broken and floating on the surface. The whole space, for a considerable way round the canoe, is completely enlightened, the birds stare with astonishment, and as they appear, are knocked on the head with the paddle, and thrown into the canoe. In this manner, from twenty to eighty dozen have been killed by three negroes in the short space of three hours" (*Am. Orn.*, Vol. II. p. 239). Audubon states that numbers of the larger Clapper Rail (*Rallus crepitans*) were destroyed in the Southern States "by torch-light, which so dazzled their eyes as to enable persons land of the spot to knock them down with poles or paddles during high tides" (*Orn. Biogr.*, Vol. III. p. 37).

A somewhat similar use of fire in night-fowling is practised by the fishermen who inhabit the southern shores of the Caspian. Holmes tells us that these men capture numbers of the Common Oot (*Pelecan otus*) with the assistance of an artificial light. This mode of fowling requires a long net mounted between two stout canes, a canoe large enough to

held two men and a boy, and an artificial fire. The fuel is lighted upon a small hearth of clay fixed in the bow of the boat. It consists of some tow or cotton dipped in naphtha. A screen, arranged behind the fire, throws the light upon the water in front of the canoe. The boy sits in the middle of the boat, and occupies himself in beating a small circular plate of bell-metal with a stick. The fowlers steer their craft towards a flock of Coots or Wild Ducks, well knowing that the sudden glare of the reflected light is sure to dazzle the birds and increase the scare caused by the beating of the metal plate. When the right moment arrives, the fowler, who stands behind the screen, claps his net over his intended victims. He gives the net a sudden turn in the water and lifts the birds out. As soon as the tender holds the cane supports of the net in a perpendicular position the birds fall into the bag of the net. The unlucky Coots are rendered helpless by their wings and legs being twisted together. In this condition the birds are thrown into the bottom of the boat, which is then steered towards another party of wildfowl. Mr. J. H. Gurney has placed on record the curious means adopted for capturing Coots on Lake Menzalah. The engine employed by the Egyptian fowlers is a cast-net, thrown by a single man and with consummate skill. As soon as night sets in four or five "Coot-enters" sail forth in a flat-bottomed boat provided with a fireplace of baked mud, and a couple of punting poles, for the greater part of this immense lake is very shallow. Soon the distant muttering of the quarry is heard. The punt is propelled in silence until the moment comes for one of the fowlers to go in pursuit of the birds. Then one, more handy than the rest, slips aside his pelisse of sheep-skin, stands erect for a moment naked, save for a thin waist-band, and a tight-fitting black skullcap, winds a long casting-net round his right arm, and jumps into the water; and near the use of the skullcap is seen, for as he is immersed to his nostrils it is the only part which shows, and of course it resembles a Coot exactly. . . . As soon as he has disappeared in the darkness, we lie down again and wait the result, nor have we long to wait. On a sudden the rush of many wings is heard. He has made his cast, there is no longer any need for silence. His comrades in the boat make up the fire, and after throwing out a bundle of blazing reeds to show they have moved, pull rapidly towards the place the sound came from. We strain our eyes in peering through the darkness until in a few minutes we perceive him returning dripping wet, with

the Coots alive in the net, having been absent little more than a quarter of an hour, long enough all the same to freeze him to the very bones. They wrap the poor wretch in a 'burnous,' and then he stands over the fire and litely steams. All night these sturdy fellows follow the working of the Coots with dogged perseverance if they go on feeding; but if the night is calm Coots do not feed after twelve. On a still night they sleep best, and then as many as 150 are sometimes taken" (*Reminiscences of a Naturalist*, p. 94.) Here it may be remarked that the Italians are famous for the ardour with which they pursue the Coot upon the great lakes of their country.

Tanaka describes the netting of Coots which was practised in his day. It may still be extant, for all that I know to the contrary. The locality in which he witnessed this pastime was the Valli di Comacchio, in the north of Italy. The lagoon was divided into sections ("Pezze") by banks of reeds. The plan which the local fowlers employed was to stretch giant flight-nets over the beds of reeds, in order to intercept the flight of the Coots. Each net measured forty *braccia* in length and twelve *braccia* in depth. The men engaged in catching Coots commenced to drive the birds at daybreak, the nets having previously been set in the required position. The fowlers pushed their punts rapidly in the wake of the birds, which they alarmed by drumming loudly on the floors of their boats. The Coots were handicapped by their short wings and heavy bodies. As they flew in consternation from one part of the lagoon to another, they became entangled in the folds of the outstretched nets.

Count Ettore Aringone D'Adda has kindly sent to me a series of photographs of wild-fowling on the Laguna di Venezia, where capital sport is to be had in shooting "Folaghe" (*Capla*, Coots) in winter. Decoy ducks and artificial dummies are extensively employed. Savi tells us that a great number of Coots are killed annually in Tuscany, in spite of the fact that their edible qualities are held in poor estimation. A very murderous method is that practised on the Lake Macinecchi under the title of the "Tela." At Montepulciano it is known as "la Cuccinella." Savi describes the Lago di Macinecchi (partly situated in the territory of Tuscany partly in that of Laurent) as consisting of a vast extent of inundated land, bounded on the side nearest to the sea by banks clothed with fir woods, or with strips of oak, limes, and horn-oak. The hills, which slope down to the other side of the lake, are rounded in

outline. They are almost completely covered with vines, olives, and groves of chestnut, so that the scenery is picturesque. On the autumn and winter mornings during which the chase of the Coots is carried on, the fowling assemble early for this purpose from the surrounding villages. As the day went on numbers of boats, each large enough to hold two persons are to be seen thronging together in the centre of the water. The fowling commences about 8 A.M. The boats are piloted by the most experienced men, and advance in semicircular line to surround the Coots. When the multitude of Coots is fairly enclosed, the boats get into line, and prepare for the onslaught which will soon ensue. A dull undulating noise seems to glide over the surface of the lake. The birds are seen rising in a long line, or circling high around. When the birds attempt to pass over the ring of boats, to gain the open water outside, the gunners take their ranks, and the water is blackened by the bodies of the stricken host of dead and crippled birds. Another Tuscan method of Coot-shooting is that known as the "Zampogna." This is employed on moonlight nights in the middle of July and August. Two fowlers crouch down in a little hut in some moonlit spot, at a little distance from reeds or rushes. One of them then imitates the call-note of the Coot with a kind of little reed pipe, called the "Zampogna." When a wild Coot hears the call of its imaginary mate it wheels past the boat, and affords the gunnerman easy shot. More than a hundred birds have been killed in this way in a single night. In the south of France immense quantities of this species, locally entitled the "Marreque," are shot by similar tactics to those pursued by the boatmen of the Tuscan lakes. Such a battue in Provence often terminates the lives of a thousand Coots, but this number falls considerably short of the slaughter of Coots effected in one of the "drives" of these birds at Shipton Ley in Devonshire. The peasants of Southern France are also clever at catching Coots in submerged nets, into which the birds unwittingly dive.

The American Coot (*Felco macroura*), which only differs from our home bird in having white under-tail coverts, used in Audubon's time to be captured in Tunnel-nets. These engines were set across the bays of the lakes in the neighbourhood of New Orleans for catching Ducks. Great dexterity was needed to prevent the Coots from scrambling out of the nets. The negroes and lower classes in New Orleans used these birds to make "gumbo," and prepared them for table by skinning them.

There must be quite a trade in Purple Waterhens (*Porphyrio*),* to judge from the numbers offered for sale in this country. It has been stated that the Purple Waterhen (*Porphyrio porphyrio*) is taken in large numbers in the neighbourhood of Catania, "with nets which are similar to the beam nets used by fishermen" (*Ibis, Fauna of Europe*, Vol. V, p. 46). Desiring to test this statement, I wrote to Mr. A. W. Elford, the Vice-Consul of Catania, who replied in the following words:—"The large Purple *Gallinule*, or rather they are called here 'Fagguni duequa,' i.e. water pheasants, are very abundant during the winter months in the vicinity of Catania, on at the Lentini Lake and the Pantano of Catania, which is really a marshy lake. The bird is not taken in nets, but is such a foolish fowl that when it sees a punt come along side, it sticks its head in the water, and remains with its tail out, and the boatman or sportsman hauls it into the boat. Sportsmen who go after snipe often capture the bird. I remember that I once got three without firing a shot. My setter pointed in the long weeds or marsh grass, and on putting the snare I found the 'Fagguni' in hiding."

It may be remarked, incidentally, that the Common Coot is often taken by hand by the Wagri fowlers. Mr. Littledale reports, "They run down the Coots in the reeds. The Coot generally dives and is at once nabbed as it rises. Its wings and legs are then broken and in this state it is kept for days until its turn for the pot comes. I saw a man and his two daughters at their dinner on an island on the Nall the other day. They were eating a roast Coot, on coarse bread, and two other Coots with wings and legs smashed, were lying in a furrow near them."

Dr. Percy Bendall, F.Z.S., recently wrote to me from Fort Johnston, Nyassaland, that he had obtained specimens of Allen's Purple Gallinule (*Porphyrio alleni*) and the Green-backed Purple Gallinule (*Porphyrio wingadonensis*). He was assured that these birds had been taken alive in nooses of thin twine. The latter species was living in his aviary when he

* The species of *Porphyrio* indigenous to the Polar Isles is caught by means of snares. These are made of the blue of the moss cut on of *Hylocomium*. An arched piece of wood is selected and bent through to receive the ends of the snares, which are thus fastened on the upper surface. Three running nooses hang in a row inside the beam. The Waterhen runs through the undergrowth and unwarily inserts its neck into one of the nooses. Kubary's figure of this device shows that it bears a near resemblance to the snare used for taking Quail in Japan (see p. 387).

wrote, feeding chiefly on fish. Before taking leave of the Rail family, I ought to point out that the large Weka Rail (*Oedreanus australis*) is easily captured by the Maoris and colonists. Mr W. W. Smith writes to remind me that this typical native of New Zealand is highly inquisitive, and is easily attracted within reach of a snare by any coloured article. Buller remarks that a red piece of cloth would always serve to excite a Weka which he kept in confinement. It is, in fact, sometimes captured with a noose attached to the end of a rod, while its attention is diverted by the waving of a scarlet rag.

Mr W. W. Smith has drawn my attention to an interesting note upon this subject, contained in an inaugural address delivered to the Southland Institute by the late Mr I. T. Thomson, F.R.G.S., Oamaru, 2nd February, 1857. Woodhens (*Oedreanus australis*) in great abundance. The Maoris kill the birds at night, in this manner,—"they kindle a fire in the forest, which attracts them, then, taking advantage of their pugnacious propensities, they place a red rag tied to the end of a stick before the bird, this it attacks, when the Maori, undeserved, strikes it down with a stick" (*Trans. N. Z. Inst.*, Vol. xiii. p. 469). The Black Woodhen (*Oedreanus fuscus*) is not found in the bush for it frequents the sea-shore and feeds among the kelp and seaweed. Its capture is no less readily effected than that of the species last named. "Like its congeners," writes Buller, "it may be easily snared by dangling a small bird or a mouse at the end of a stick, about a yard long, and then, by means of another stick, somewhat longer, slipping a noose of green flax over the bird's head as it attempts to seize the bait, the operator partially concealing himself by lying in the fern or grass" (*Birds of New Zealand*, Vol. II. p. 113).

[The headpiece represents a curious method of catching Coots by firelight. It is based upon the description furnished in Holmes' *Sketches on the Shores of the Caspian*.]



CHAPTER XLIV.—BUSTARDS AND FLORICAN.

THE post history of the Great Bustard (*Otus tarda*) is full of pleasurable interest. That the young birds were taken alive, to be fattened for the table, is well known. I have failed to find any evidence that nets were employed for Bustard-catching, at least within the historic period. There is, of course, the tradition related by Oppian and other classical authors, that a horse was sometimes used to decoy a flock of Bustards into a net which had been stretched on the bank of a river or upon the edge of a marsh. Yet it does not appear that any such device was practised in England when Bustards were plentiful. But were these birds ever plentiful in our island? Gesner was assured that British Bustards were exceedingly numerous ("Trappos permultos in Anglia esse audio"). His information carries us back into the middle of the sixteenth century, and refers, perhaps, to Cambridgeshire. At all events it suggests such a county, in which level grass meadows stretched away for miles between vast areas of unclaimed marshes and ague-breeding swamps. Here the Bustards held their ground for many a long day. No doubt the fowlers often tried to stalk these birds, which were even then considered shy and wild, but easy to secure if slightly wounded. The cross-bow sealed the fate of some unlucky individuals, witness the following entry in the

Household Book of the L'Estrange family in 1527: "Wedynseday. Item. vij. malards, a bustard, and j. hernsowe kyllled wt ye crosshawe." Gesner observes that our Bustards were killed with Hawks or caught by dogs. These birds were possibly caught by dogs when they had newly arrived from the Continent, or were impeded from flight in some other way. I have no doubt that our old English race of Bustards received additions to its numbers from the great plains of Germany. But it seems most likely that the bow was the principal weapon for killing our home-dwelling Bustards until guns became common. Incidentally, it may be remarked that even in Gesner's day the feathers of the British Bustard were in request for dressing flies ("Trapporum pennae a ph-catoisibus requiruntur, ut representas ex eis minus procurescendis piscibus, hamis suis annexant"). The Cossacks of the Don were found by Pallas to shoot the Bustards of their native steppes. The engine by means of which they outwitted the Bustards was "a small cart, covered with reeds, and imperceptibly pushed forwards, so as to shoot the birds with a gun" (*Travels in Russia*, Vol. 1 p. 465). It would appear that a similar piece of strategy was formerly adopted to enable the fenland sportsmen to add these magnificent birds to their larders. I refer to a statement published in the *Field* of October 5, 1878, under the signature of "Greville F."

"In my recent visit," he says, "to the fens of Cambridgeshire, I met with some old warreners who recollected when the Bustard was common. They represented it as an extremely sagacious bird, and that therefore extraordinary pains were resorted to for that purpose. At Icklingham is still preserved one of the Bustard-fowler's 'Crib's.' This 'Crib' is a sort of rick-cabin about three feet high, covered with furze and bramble. It moved upon four wheels, in its centre a windlass was fixed, and at different parts of the four posts were firmly planted, attached to which were ropes having their connection with the windlass. The fowler, seated in the 'Crib,' when he saw the Bustard alight and sufficiently engaged, would gradually wind the 'Crib' towards the direction of the bird, and when within shot, let fly. The 'Crib' is now a relic of the past ornithological history of the district, and deservedly thought much of." Mr Abel Chapman has drawn a striking picture of the discomforts of the Spanish sportsmen who shoot Bustards from bullock-carts such as are engaged in clearing the crops from the stubble. He tells us, too, that the Spanish peasants shoot these magnificent birds at their drinking-

places at break of dawn. Yet another Andalusian custom is to go in search of Bustards under cover of night. "When quite dark, the tinkling of the 'Gacare' will be heard, and a ray of light will surround the devoted Bustards, charming or frightening them,—which ever it may be,—into still life. As the familiar sound of the cattle-bell becomes louder and nearer, the ray of light brighter and brighter, and the surrounding darkness more intense, the Bustards are too charmed or too dazed to fly. Then comes the report and a heavy charge shot works havoc among them" (*Wild Sports*, p. 36). An old English writer, John Denton of Carden, has left in his MS. a note which bears upon the Bustard's weightiness of flight. "As Bustards web are very scarce, & only to be seen on Salisbury plane. They are a pretty large Bird, & run as fast as a hare along ye ground for a considerable time before they can take flight, & are very difficult to be taken: as they will seldom come wth in a gun shot. A Bustard eats well, and has a fine flavour" (1610). It was this apparent shewiness in the Bustard's rising from the ground which enabled the Kalucks of Siberia to kill these birds by means of their bows and arrows: "When they see them feeding, they ride in upon them at full speed, and as the Bustard is a heavy bird and mounts slowly, they have opportunity of shooting them with broad-headed arrows" (*Dell's Travels*, Vol. II p. 41). Linsden remarks that a number of Bustards were caught in Hesse in the winter of 1803-4, the frost having frozen the feathers of these birds.

Even at the present time the Russian peasants occasionally capture flocks of Bustards when the birds have been drenched with rain, which has subsequently frozen upon their feathers. Mr Norman Douglas has drawn my attention to a paragraph published in a St. Petersburg paper of 17th January 1896. It is headed, "Eine ganze heerde Trappen gefangen." The writer of this notice remarks that the Bustard is well known to be a shy bird and one which only affords sport when the fowler approaches disguised (Maskirt). It happens, nevertheless, that when severe frost suddenly follows a heavy downpour which has saturated the feathers of the Bustards, their plumage become so rigid that the Bustards cannot make their escape effectually, either by running or by flight. Under precisely such conditions as those described, the peasants of Dorfes Timagowa had just captured a large flock of Bustards. The entire party of birds, numbering no fewer than sixty-three indi-

viduals, was secured and taken to the market at Kiew. Mr Douglass had previously sent me the following note:—"Bustards are caught in the southern governments of Russia in November and December, after the rain which chills them or moustens their feathers, so that they cannot rise to fly. Peasants often catch large quantities. They can be driven along like geese. They are never trapped, as they have no fixed places of resort."

We alluded above to the Bustard having been killed by European falconers in mediæval days. This Bustard (or one of its near allies) is hunted with hawks in South-West Siberia. Mr. Jules Biesiadecki writes to me that he was invited, in September 1869, to take part in such an expedition as a guest of the Kingizes of the neighbourhood of Uskaniinogorsk. This is what he saw. "Two Kingizes, each holding a trained Goshawk, rode out on to the steppes to look for Bustards. When they see a party of these birds in the distance, the falconers separate and endeavour to approach the flock from two diametrically opposite sides. As soon as the riders observe symptoms of fear and preparation for flight amongst the birds, they start at full gallop towards them, manœuvring in such a way as to cut off one bird from the rest. When this end is accomplished, they cast both their hawks at the quarry simultaneously. As the Bustard is heavy and slow on the wing, the hawks soon rapidly overtake it, and each attacking it in turn, soon bring the great bird to the ground, when the riders despatch the prize with their whips."

Cannon Tristram gives a vivid picture of the chase of the Hombard Bustard (*Hombardus maculatus*) in his *Great Sahara*. In that case, two trained falcons are thrown off at the quarry and give chase together, hanging over their victim, and swooping down every time that the bird tries to rise on the wing. 'The poor bird runs along, muling its speed by a perpetual fanning of its wings, its head stretched forward like a cockade's, and its conspicuous black and white ruff folded close over its head.' At last, its strength begins to give way, and the fatal stroke of the falcon ends an unequal contest. Bustard-hawking is a favourite field sport in Persia and other parts of the East.

But we are at present more concerned with the means of effecting the capture of Bustards without the assistance of falconers. Mr Hume states that the fowlers of the Punjab are adepts at snaring the Great

Indian Bustard (*Capreolus edwardsi*). When the native fowler happens to discovery a small party of birds of this species in the middle of the plain he starts in pursuit, a blanket folded over his head and shoulders (unless he makes use of a trained bullock driven before him), and with a large supply of pegs and gut-mosses tied to his girdle. Having satisfied himself as to the direction which the big birds will take, if slightly pressed, he saunters slowly backwards and forwards, pretending to being engaged in cutting grass, while in reality he is pegging out rows of mosses. He then approaches the birds from the opposite side walking at right angles to the line which he wishes them to take, ever edging nearer and pressing the game towards the mosses. "Sometimes he lets them walk right on to the mosses, generally when close to them he drops his blanket, throws up his arm, and rushes at them. They always in these cases run a few paces before they rise, and though occasionally all escape, generally one, and sometimes three or four are caught by one or other leg. The chief skill consists in walking them exactly across the lines of mosses, which are never, according to my experience, more than fifty yards long and usually much less" (*Game Birds of India* Vol. I p. 101). Mr J. S. Grove, of the 1st Bengal Cavalry, writes to remind me that almost all game-birds will sooner "run round an obstacle for any distance than jump it. In Madras, Florican (*Sypheotis*) are thus caught. Their presence being ascertained in a field, the fowlers place a number of springes or horsehair mosses at the foot of the little bank or 'bund' which surrounds most Indian fields to keep in the water when the ground is irrigated for growing rice, &c. Such fields are favourite resorts of game, because of their moisture. The birds are driven very carefully towards the bank, and many are caught in the snare while scrambling hurriedly up the obstacle."

Mr Littlehale of Bencha has favoured me with a detailed account of how the fowlers of that district capture Florican (*Sypheotis sinensis*). "The Florican," he says, "are seasonal visitants to some extent and chiefly appear during the monsoon months, from the end of June to the end of September, when they breed in the long grass. Most are taken during July and August, before the grass has grown to its full height, and of those taken in the latter month especially, quite eight out of ten are males. This is due to the very conspicuous black plumage of the male. The female is only visible (even to the sharp eyes of a Wagon)

before the grass is tall enough to hide her, and she does not seem to be so fond of springing up in the air ('dancing,' the natives call it) as the male appears to be. This habit of 'Nautchang' lets the wily Wagri note the exact position of the bird, and make his arrangements for its capture. He first creeps to within twenty or thirty yards of it, selects a suitable position and unfolds his long series of nooses set in long frames. The snare I used consists of twenty-eight pieces, of frame-work, each sixteen inches in length, and there are three nooses in each section, *viz.* eighty-four nooses stretched along thirty-seven feet, four inches, *or* allowing for zigzagging a little, say thirty-two feet of noosed cover. Noting the exact position of his snare, and keeping well out of sight, the little hunter stalks round till he gets the bird between him and the snare. Showing himself a very little from time to time, he works it gradually towards the nooses, and as it is a runner and dives through grass and scrub, like the other bustards, it soon runs its head into one of the eighty-four nooses and is taken. The Wagri runs up, releases it from the snare, and ties its primary feathers tightly round its long tarsi, in which state the poor thing is kept alive, often for days, while it is being taken round for sale. I have occasionally received presents of birds thus tied, and on liberating them have found the legs much lacerated by the way in which the feathers have been twisted round them. During the cold weather, when the grass is a withered brown, and the Florican are all grass-colour, the birds are invisible even to Wagris. I have seen half a dozen hunters searching for more than five minutes in a patch of grass before they could discover a wounded Florican that all the time was sitting bolt upright and motionless in their very midst. Very few are shot at this season, as the grass is long, and the birds are inveterate runners and squatters, and trust to their invisibility rather than to their wings for safety. It is well for them that they do so, as they offer easy shots. I have put up a few from time to time in long grass near water while beating for Quail in the cold weather."

The Australian Bustard (*Elephas australis*) is much sought after on account of the delicacy of its flesh. It is a bird of fine presence, and stalks over its native plains with a dignified carriage. Mr Tom Carter informs me that in Western Australia the blacks obtain the Great Bustard, or "Turkey" as it is commonly called, by marking down a nesting bird, and crawling up at night to catch the bird while covering her eggs. Mr J. M.

Davis remarks that the patience shown by the black is very great. "A native will spend hours in catching a Bustard. The usual plan is for the man to put boughs round him until he looks like a mass of leaves. He then makes a running noise out of a piece of cord, fastens it on the end of his spear, and sallies forth in search of game. The "Turkey" is only found in open country, and is a most wary bird; but the black is equal to the occasion, and particularly when on his success depends his dinner. When the bird puts down his head to feed, his enemy moves towards him, and as the bird raises his head the black stops quite still; the bird sees what is apparently a bush, is satisfied, and again lowers his head to feed, when the black again moves closer, and so on, till the noise is thrown round the neck of the unsuspecting bird and he is secured" (*The Aborigines of Australia*, Appendix, p. 314). Smyth contributes a note that, in the Western district of Victoria, the natives catch the Bustard by attaching such a noise as that just referred to the end of a long, flexible pole, but with this difference, that the skin of a small bird on the body of a butterfly is fixed upon the end of the pole. "When the hunter sees a 'Turkey,' he slowly approaches the bird holding in front a bush to hide his person, and swinging aloft the decoy with a peculiar motion, characteristic of the bird or insect. The 'Turkey's' attention is at once arrested and wholly taken up with the movements of the decoy. He stares at it stupidly, turns round and stares again, but though it approaches, he does not move far. He continues to stare, until the black gets near enough to slip the noose over his head and secure him" (*Aborigines of Victoria*, Vol. I. p. 192).

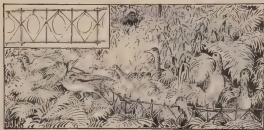
The Little Bustard (*Ovis montanus*) is frequently exposed for sale in the markets of Southern Europe—indeed, I have purchased fresh specimens in the Halles Centrales at Paris; but its fate is generally sealed by powder and shot. Mr O. Salvin states that the Arabs of the Eastern Atlas are often skilful in catching birds. "Larks (*Luscin.*), Oals (*Albion*), and *Sopas*, rollers (*Corvus*), and now and then a Little Bustard (*Ovis montanus*) were brought to us. I am not aware that they employ other means than the burmese in effecting their object. Thus they hold extended with both hands, when, after having kicked their shoes off that they may tread more quietly they endeavour to envelop bird, nest, and eggs in the universal garment" (*Ibid.* 1859, p. 191).

An interesting note upon the capture of the Little Bustard in Russia

is recorded by Mr N. Archasscheff: "During the pairing-season the male chooses a small hillock where he comes daily and jumping about, utters a harsh cry like *tee, tee*, which, though not loud, may be heard some distance. The Russian peasants know this habit of the bird, and easily ascertaining which hillock the bird frequents, place snares on it, into which the bird rushes, and seldom escapes being caught" (*Bull. Soc. Imp. de Moscou*, 1859, No. III. p. 70).

Friderich incidentally confirms the experience of the Russian naturalist, for he states that the males of the Little Bustard pair in the month of April. The cock birds call at frequent intervals and return to their favourite pairing-grounds, on which they remain until they have obtained their respective partners. They indulge in many battles with their rivals. In the south of Germany, adds Friderich, these birds are captured by means of horsehair snares ("Fuss-schlingen"), which the fowlers set upon their feeding and pairing grounds. French fowlers entice the males within shot by means of stuffed female decoys, reproducing at the same time the cry of the supposed hens. In Sardinia, where the Little Bustard is plentiful, it is customary to drive the old hens and their broods into Tunnel-nets, such as are used for taking Partridges ("im Bobbahnnetz-zug").

[The tailpiece has been drawn to illustrate the method of driving Florican into frames of snares described by Mr Littledale.]





CHAPTER XLV.—CRANES.

THE beauty of the Crane family (*Grus*) makes the capture of these graceful birds an object of desire to the fowler in many lands. Our English ancestors were great admirers of the Crane (*Grus grus*). It is painful to be compelled to add that their appreciation assigned the Crane to the tender offices of "the boys of the kitchen." It must be borne in mind that the Crane was not always a rare visitor to Great Britain. It is true that the name of "Crane" anciently applied to the Heron in the north-west of England and perhaps in some other parts of the country. But there is evidence to prove that, though the Crane was always confined to the eastern parts of England, it was well known in the fenny country of Lincolnshire and Cambridgeshire. Our first English ornithologist, William Turner, a naturalist of European reputation, stated in 1544 that the Crane undoubtedly bred in England. He had himself repeatedly seen the nestings of this species, presumably in the neighbourhood of Cambridge, where he resided for fifteen years.

It is not unreasonable to conjecture that the small number of Cranes which resided in our fens all the year through, were joined by flocks of their own kind in the autumn months. The latter had then deserted their summer haunts among the bogs of Lapland and were making their

way south to more temperate winter quarters. This hypothesis would fit in with the statement of Ray, that Cranes frequented the swamps of Lincolnshire and Cambridgeshire in the middle of the seventeenth century. He had failed to obtain any proof that these birds bred in either of those counties. He apparently regarded the Crane as mainly, if not entirely, a visitor from abroad since he wrote, "They often come to us in England" (*Ornithology*, p. 274). Be this as it may (and personally I believe that the Crane ceased to breed in England towards the close of the sixteenth century), we have plenty of evidence to show that the old race of Cranes were held in high esteem. Lincolnshire is the county in which they seem to have been represented most numerously. Thus we should expect from its vast marshes, and from the fact that it lies in the line of migration of so many birds that annually cross the North Sea. The Registers of the City of Lincoln include notices of various presents which the Mayor and the citizens offered to persons of rank or influence. In 1537 it was decided, on the 29th of January, that the Mayor should present the Duke of Norfolk with a gift of two Cranes, two Swans, and two Pikes. In 1548 the Duchess of Suffolk and her son were presented with two Cranes and four Swans. On the 9th of June 1552 the Mayor of Lincoln and his brethren debated what present should be given to the Duke of Northumberland when he visited their city. It was agreed that the present should include four Cranes and six Cygnets, besides some lesser fowl. A Secret Council met on the 20th July 1554 to decide that a present of two Cranes and four Cygnets should be offered to the Queen's Attorney. I imagine that Cranes became difficult to procure after the middle of the sixteenth century. When the good folk of Lincoln determined to make a present to the Earl of Rutland in 1561, they prudently left undecided the species of birds which were to be procured. They preferred to order that a delegate should be despatched to Boston to lay out their money to the best advantage. Their hospitality was not always equal to providing Cranes. They had at last to fall back on farmyard fowl. In 1568, for example, they agreed to present the Recorder with two fat Swans, or one fat Swan and a fat Turkey-cock! But Cranes were sometimes obtained in Norfolk after they had become scarce in the markets of Lincolnshire.

John Rugges of Walpole, in Marshland, had occasion to write to a member of the Gwelo family on the 27th of November 1563. He

reported that he forwarded a Crane with two Mallards, which was all the fowl that he had been able to obtain. He had spoken for Knut, which would cost five shillings the dozen. These birds were commonly taken at Terrington, where a storm had caused such a heavy loss of sheep that "fowlers have no leisure to lay their net for fowl." It is natural to suppose that the Crane was usually obtained with the cross-bow. This conjecture is supported by the fact that, of the five Cranes which we know to have been supplied to the table of the L'Estimanges of Hanstanton between 1519 and 1533, one at least is recorded to have been killed with the bow, though another was slain with a gun. Yet there is reason to think that the Crane was sometimes taken by other means. Lydgate wrote in a poem of 1444 :

"Bocard with botirdyes makith boytis for a Crane."

(*Political Poems*, Vol. II, p. 215.)

In other words, the Crane can be caught with the bait of an insect, though whether the moth or beetle is intended to be impaled on a hook or fastened to a snare is left undecided.

James Smith of Drumburgh, who speaks the vernacular tongue of Cumberland with great purity, informs me that the common Ghost Moth is termed the "Boccard" or "Beetle" in his neighbourhood. Murray says that the name of "Boccard" is applied to various insects that fly by night, such as large moths and cockchafers (*English Dictionary*, Vol. I, p. 1227). He also quotes the Lancashire Glossary, "He's ohez after buzzerts and thungs." The Crane of ancient history was taken by the Greeks, probably in Asia Minor, by means of a lined gourd. The interior of the trap was smeared with birdlime and baited with a live insect. The Crane endeavoured to secure the beetle placed within, and was blinded by its sticky nightcap. So at least tradition asserts. Whether the idea was only theoretical I am unable to say, but it obtained wide credence.

Another case of Greek origin was that of baiting a snare with a bean placed on some straw at the top of a reed. The Crane endeavoured to appropriate the morsel of food, and unwittingly thrust its head into the noose, which, by the way, was weighted with a stone, so that the bird might not fly away. Berchtein alludes to the employ-

ment of snares for catching this capacious fowl. He affirms that the wary "Kamnich" can be captured alive by means of ground-snares. These are made of strong horsehair, and are set in a circle, in the centre of which the fowler strews some corn. The snares are attached to a peg which is buried in the centre of the circle. When the wild Crane spies the tempting grain, it hastens to partake of the food and incautiously steps into one of the series of snares. Mr Charles Tickell remarks that, in some parts of the Punjab, the boys who herd cattle often kill these birds by means of a kind of sling. This consists of a string having a stone fastened at each end like a chain-shot. This weapon is thrown over a flock of Cranes as these birds rise from the ground. Mr G. Vidal informed Mr Hume that he found that the Demoiselle Crane (*Anthusoides virgo*) can be stalked behind a country cart or a "led" horse, when the bird is feeding with other individuals of the same species in the vicinity of growing crops or stacks of grain.

Mr W. N. Chell, writing from near Delhi, assured Hume that this Crane is sometimes netted by a caste of fowlers known as "Kal-butts," who lay clap-nets in places frequented by these birds. The nets are covered over with grass, and corn is cast upon the surface of the ground between the nets. When the unblushful fowler observes any Crane alighting to feed within reach of his toils, he pulls his strings, and the nets enclose the prize.

There is also a caste of fowlers called "Bawaryas," who are skilful trappers. These men contrive to trap both the Demoiselle Crane, the Common Crane, and the White Crane (*Grus leucogeranus*), by means of clip-noses which they manufacture out of the tendons obtained from the tarsi of large birds. When one of these fowlers discovers a flock of Cranes in a convenient position, he proceeds to set his nooses for their capture. These snares are fastened to a series of pegs, so that the fowler has only to peg the nooses out in the ground in the order he desires. Having fixed the nooses to his satisfaction, he and his companions proceed to try to outflank the birds, for which purpose they employ a buffalo as a screen. The fowlers approach nearer and nearer to their game. Suddenly, when the Cranes are only a short distance off, the fowlers quicken the pace of the buffalo, thus compelling the Cranes to walk faster away. In

the confusion which follows, some of the Cranes generally entangle their feet in the nooses, and so are taken. When these birds are caught by natives, they secure them by stitching the edges of the eyelids tightly together. Thus temporarily deprived of its vision, the Crane becomes a helpless and unresisting prisoner.

[The headpiece is reproduced from Tunn's work *P. Fulcomere*.]





Quinta la Parola legge: Quel rebus, amplissimo.
Flutto, flutto d'acqua entro fiamma vanti Un

CHAPTER XLVI.—NETTING AND SNARING WOODCOCK.

THE EUROPEAN WOODCOCK (*Scolopax rusticola*) is a favourite in all parts of its range, by reason of its delicate flesh and prime sporting qualities. Long before the modern gun was invented, the Woodcock figured largely among the various species served up to the tables of the opulent. Accordingly, the destruction of this bird was eagerly sought after. Tempesta prior to the year 1639, executed a woodcut intended to depict the two methods of catching Woodcock, then most widely in vogue. The foreground shows a series of snare or springes set to catch Woodcock. The background displays the engine which our forefathers termed a "cock-shott net," as manipulated by the attendant bowlers. This latter device once enjoyed a high popularity in England as well as on the Continent. Indeed the practice of netting Woodcock was so general as to suggest the employment of the term phrase "cock-shot time" as a synonym for twilight. Shakespeare uses it in this sense. Thus, King Richard III. asks:—

¹⁰ "Saw'st thou the melancholy Lord Northumberland?"

Ratcliffe responds,

" Thomas the Earl of Surrey and himself,
Much about cock-shut time, from troop to troop,
Went through the army, cheering up the soldiers." (Act v. Sc. iii.)

The late Mr. Dyce accounted for the metaphor by suggesting that "the net in which cocks, or woodcocks, were caught or shut in during the twilight was termed a cock-shut, it being a large net, which, suspended between two poles, and stretched across a glade or riding, was easily drawn together" (*Glossary*, p. 87). Murray (*English Dictionary* Vol. II. p. 577) shows that Dyce was probably mistaken inasmuch as the term "cock-shut" did not refer to the net used to take these birds but to the passage in which the net should be set. He says that a Cockshut or Cockshut is "a forced way or glade in a wood, through which Woodcocks might dart or shoot," seems to be caught by nets stretched across the opening." He cites the following examples of its use:— 1530. *Pdger* 206 Cockeshute to take woodcockes with, under. 1601. No Whapping nor Tripping etc. A silly honest creature may do well To catch a cockeshute or a hunsd larch. 1651. *Ogilby Aesop*. When hard winds make cock-shutes, thro' the wood, bending down mighty oaks, I then have stood. 1664. *Lovell Hist Anna & Min* 180. They are taken by nets in Cock-shoots. 1691. *Blount Law Diet Gallicolatum*, a Cockshut or Cockglade. The Rev. M. A. Mathew has drawn attention to an interesting reference to the Woodcock contained in *The Description of Pembrokeshire*, by George Owen of Henllys, Lord of Kemez, published in 1603. Owen claims that "the Woodcocke, although he be not our countryman here, yet wee must needs thinke him to be of some affinitie to manie of our countrie people, by reason of the love and kindness he sheweth in resortinge hither, first of all before other partes of Wales, or England, and in more abundance than elsewhere, and stayinge longer with vs than in anye other place." He adds: "Yf anie Easterly winde be alofte, wee shalbe sure to have him a fortnight, & sometimes 3 weeke before Michaelmas, and for plentie yt is almost incredible, for when the chiefe time of haunte ys, wee have more plentie of that kinde of fowle early, then of all other sortes layed together, the chiefeest plentypes betweene Michaelmas and Christmas, and in these three monethes he visiteth most houses, their chiefe takinge is in cockerendes in woodds, with nettes erected up

between two trees, where in cocke shoote tyne (as yt is termed) web is the twilight, (a litle after the breakinge of the daye, and before the closinge of the night) they are taken, sometimes ij. iij. or iij. at a fall. I haue my selfe oftentimes taken vj. at one fall, and in one roade, at an eveninge taken xviij. and yt ys no strange thunge to take a hundred or sixe more in one woodd in xviij.th houres if the haunt be good, and much more hath bene taken, thoughte not usually." The best English treatise on netting Woodcock is contained in Richard Blome's work, *The Gentleman's Recreation*, Part II, Ch. XVI. This writer deals first with the construction of "Cock-shoots" so, as he prefers to call them "Cock-Roads." These, he says, "are easily made, and bringe once done cost nothing the preserving, yielding a considerable Profit as well as Pleasure, when in an *Evening* either by ones self, or his *Servant* (if he be trusty, and that you live near no great *Markets*) you may perhaps take Three or Four brace, and as many in the Morning of excellent *Woodcocks*, and one so taken is worth two that are shot." Instructions follow, by which the tyro is enabled to find the "Through-fare" which the birds frequent in the woods. A walk of thirty-six or forty feet must be cleared of underwood. The Cock-net is then fixed in a suitable position by means of cords, to which pulleys are attached, to obviate the necessity of the fowler climbing up and down a tree to arrange the tools. Another plan is, "To take Woodcocks by Nets in high Woods by driving them into Nets. Your *Net* must be like your *Rabet* Hyes, but not so strong, and about Twenty fathom long; and of these you should have Two or Three. Being provided with Nets, and having the assistance of five or six to go into the Wood with you (which should be at the least Seven or Eight years growth, for the elder the better) then go into some part thereof, about the middle if it be not to large, and Pitch your *Nets* along as you do for *Rabets* (but one joining to the other) likewise, hanging over that way which you desire to drive the Cocks. You may make room for the *Nets*, if there be no Pithes, by splashing away the *Shrub-Wood*. Your *Nets* being thus fixed, let your company go to the end of the Wood at about Ten Rod asunder; and having Sticks in their Hands, make a noise, as also use your Voyces as if you were driving Cattle along, and so go forward & forward till you come to the place where your *Nets* are set, and you will not fayl to catch those that are in that part of the wood. Then when that part of the *Wood* is thus drove, turn your *Nets* likewise

to the other side, and go to the other end, observing the aforesaid Directions. This way you may use to take them at any time of the Day, with great ease and pleasure" (p. 150).

The system of netting—*la besasse*—formerly adopted in many parts of France has been fully described by the "Séduite Inventif" and other writers of the same nationality. The engine employed was the "Pantière," a similar net to the English "Cockshot net." Sometimes a triple net was used, called "*la Pantière contre-mulée*." This consisted of an inner net, called "*la Nappe*," or "*Toule*," suspended between two outer nets of larger mesh. The "Pantière" used for catching Woodcock was ordinarily a single net, measuring from twenty-four to thirty feet in depth. The length varied, but a net of a hundred feet was commonly employed. The "Glades" or "Cock-shoots" by which the birds were accustomed to enter the forests in which they passed the hours of daylight were termed "*des clauvres*" or "*Passes*," of the *Bourasses*. Bullard remarks that Woodcock catching usually yielded poor results in the spring of the year, when the birds were engaged in pairing and toying with their mates. In consequence of this he says, the birds descend the dells or "Vallons," which they delight to cross in the fall of the year, and resort instead to cover in the immediate vicinity of tall trees. He declares that the most favourable position in which to set a net to catch Woodcock is a narrow passage in a tall wood, watered by a small brook or bordering on some soft marshy ground. Calm and dull weather, with a light morning shower are favourable to good sport. The "*Séduite Inventif*" speaks of the Woodcock as a passing spring and autumn visitor to Central France. He tells us how these birds feed in close cover during the day, searching for earthworms under dead leaves. When the gloaming arrives, the birds leave the centre of the woods, and go in search of streams and springs of water. If they wish to enter a great wood, or to cross from the other side, they always fly low, until they come to an opening which they can pass through. He accounts for this habit by supposing that the Woodcock does not ordinarily care to fly high, and dislikes to dart between the branches of trees. The second and third chapters of the third book of the *Essai Instructif* explain how to make the "*Chânières*" or "*Passes*" in which the nets are to be set, and how to fix the nets in position. As regards the making of the "Cock-shoot," the French idea was to lop off any branches of the trees, in the selected locality for fowling

that might interfere with the manipulation of the net. The net was extended on a strong cord which Schiœmont (*Le Pigeon Chasseur*, p. 198) tells us was called "le Maître." Sometimes the pulleys of the net were attached to strong poles, sometimes to the branches of trees. Often a small hut was built close to the fowling station, from which the sportsman could direct the arrangement of his net, and haul it down when a Woodcock struck against the meshes. The "*Solitaire Inventif*" speaks of the capture of a dozen Woodcock in a single day, or rather night, as constituting a good haul. Schiœmont says that in Picardy some of the Cork-shoots of Picardy yielded from seven to eight hundred Woodcocks annually. Neither Di Valli nor Olina mention the use of nets for catching Woodcock in Italy. Sans declares that, in Tuscany, the amusement of taking the "*Baccano*" in the fine-meshed net or "*lingna*," set across the entrances to the woods, was rarely practised in Tuscany when he wrote (some sixty years ago). Nevertheless our countryman John Evelyn found the use of "Cork-shoot" nets in full swing in the neighbourhood of Rome in the year 1645. In the spring of that year, as many people will doubtless remember, Evelyn paid a visit to the Villaorghesi, of which he noted in his diary:—"Here they had hung large nets to catch Woodcocks." The late Mr Walter Campbell, who wrote in 1848, speaks thus of the Woodcock catching which he had witnessed in Italy. "A net . . . was hoisted up and suspended between two trees, in a narrow ride in one of the large woods near Ostia. Just as the sun was setting, one man remained concealed at the foot of one of the trees, holding a line in his hand by which he could hoist or lower the net at pleasure; two other men with dogs then went to a distance, and beat the wood very quietly. This set all the Woodcocks in motion, and as it was fitting time, when once on the wing they flew about, dashing up one opening and darting down another. If they chanced to enter the ride, where we were posted, they were sure to be taken, for they never seemed to see the net, but went headlong into it." "The man," he adds, "who held the line, always allowed them to scream and struggle for a while before lowering the net to wring the birds' necks. I asked him his reason for so doing, and he told me that these cries alarmed the other birds, and prevented their alighting to feed, and that, as they flew about to see where the danger was, they were pretty sure to pass into the ride where he was waiting for them. I can only say that the plan was very

successful, for I saw nine taken in the hour that I remained to watch the process" (*Life in Normandy*, Vol. I, p. 74).

German sportsmen of former days were as eager to net the "Waldschneepje" as their French or English rivals. The practice has fallen into disuse in most parts of the Empire (*Hofmanns, Die Waldschneepje*, p. 131). It is still in vogue upon Heligoland (*Die Vogelwarte Heligoland* p. 409). The nets employed by the birdcatchers of that island are about twenty-four feet in depth, thus corresponding in size to the French *Pantivre*. The mesh of both the German and French nets measured some two inches and a half. The length of the Heligoland nets (to which, I suppose, the title of "Stockgamen" must apply) varies from thirty-six to seventy-two feet, according to circumstances. They are set in gaps between bushes or houses. The cord which bears the net is supported between two poles, and runs through pulley-blocks fixed on the top of the poles. "Long before daylight," says Gaeke, "the fowler takes his stand beside one of the posts grasping one of the cords which pull the net in his hand. he must be very careful to lower this the moment that a Woodcock flies into the net, to ensure the net dropping as rapidly as possible, flint stones as large as two fists are attached to the upper corners of the net close to the drag-line, and if a good lookout is observed, and the cord runs easily through the block, it seldom happens that a Woodcock escapes after striking the net. These nets consist of strong grey thread, and though they may be seen from a considerable distance on a clear day, Woodcock that happen to be flying towards them enter them without suspicion even during the forenoon." When Gaeke wrote his book in 1890, ten or twelve of these "Cock-nets" were worked on the island. A tax of five marks was exacted upon each of these engines. Similar nets are used in some parts of Holland to obtain Woodcock for the London markets. Mr Mann reports to me that the Dutchmen take Woodcock "in large square nets, which are fastened to poles in such a way that they fall down with the bird when it flies against them. Sometimes the nets are constructed in such a way that the bird gets entangled and remains hanging in it, whilst the net remains standing." Enough has now been said to elucidate the subject of "Cock-nets." They do not appear to have been naturalised in Scotland at any time. Yet the Baron of the English Marches indulged in the sport of taking Woodcock with nets, if we may draw an inference from the following entries in his household

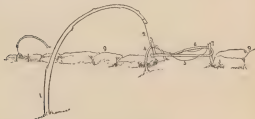
accounts for the year 1624: "To Rob Stapleton for hempe yarn in march for making a drawing nett, Vs, and for IIj hankes of yarn for the cock net, lIjs."

The peasants of Tuscany, especially in the hills, used in by-gone days to surprise the Woodcock at night by suddenly turning the glare of a lantern upon the bird when discovered feeding in some damp situation. Before the unfortunate bird had recovered from its flight, it was shot with the gun or crossbow. A similar fate was meted out to any American Woodcock (*Philopelia minor*) that chanced to alight within the borders of the cotton plantations of Lower Louisiana. The practice was that men should go in search of this species at night, carrying lighted torches. The birds were stupefied by the unaccustomed blaze of light and continued too much on the earth until felled with a pole or stake (*Ibid.* *Opus*, Vol. III. p. 475). There is more humour in the quaint legend about snaring Woodcock told by Belon (*Des Oyseaux*, p. 274). The "Pantière," or "Pentière" as he spells the term, was of course familiar to him; but he also speaks of the sport called "la Follistrerie." This curious amusement is said to have been carried out by a sportsman who dressed in earth-coloured clothes, and wore an immense hat of the same sombre hue. Two small sticks, decked with red cloth, were carried in the hands, and likewise a long rod, which terminated in a horsehair noose. When the sportsman found a Woodcock, it appears to have been his endeavour to follow the bird gently on a pair of stilts. If he succeeded in engaging its attention, he played the red-tipped sticks together. While the unsophisticated bird gazed at the unwanted actions of her pursuer, the latter silently slipped the running noose over the head of the gopher.

Allusion has already been made to the snares for Woodcock figured by Tempesta. The springes shown in his engraving differ from any others that I have seen, in the presence of the strong stake which appears in the centre of the trap. There can be little doubt that the Italian fowlers usually captured "le Baccasse" by means of the "Lacci a scotte," or "Baccachini" as it was called at Pisa (*Ornithologia Toscana*, Vol. II. p. 307). This was a spring-trap resembling the English "Sprint."

When Pennant passed through the English Lakes in 1772, he found that the dalesmen in the vicinity of Windermere carried on an extensive trade in Woodcock. The birds were sent to the London market by the Kendal coach, just as the Devonshire folk used to forward as many as

thirty dozen Woodcock a week, all netted in "Cocksheads" by the Exeter stage-coach. The Westmoorland lands were obtained by springs, "Laid between tufts of heather, with avenues of small stones on each side to direct these foolish birds into the snare, for they will not hop over the paddles" (*Tour in Scotland*, Vol. II. p. 144). Some few years ago I received a very excellent account of the working of the "Sprint" from Richard Holmes, of Fusland. As a boy, he set series of these engines. He told me that, in setting "Sprints" for Woodcock, it was his practice to form a "Walk" of rough stones (9), which made a barrier a few inches in height. The snare was set in a gap in this mure wall. Woodcock dislike to jump over an obstacle, preferring to run alongside of the barrier until an opening presents itself. Mr C. F. Archibald has kindly given me the following note concerning the "Sprint," as used in Furness.



THE SPRINT FOR WOODCOCK.

The component parts of the "Sprint" are the "Flinter" or "Striker" (1) the "Pailhe" (2), the "Tone" or running nose (3) the "Bender" (4) the "Bagger" (5), and the "Sticker" (7). The "Flinter" or "Striker" is an elastic wand, about four feet long. The wood usually preferred for the "Flinter" is hazel. To the thin end of the "Flinter" is attached a small piece of wood called the "Pailhe," secured by a few inches of string (2). To the "Pailhe" is attached the "Tone" or nose, which consists of about twenty-six strands of black horsehair, twisted together. The "Bender" is a stout piece of hazel, bent into the form of

an arch. The "Briggie" or "Bridge" is a thin slip of hazel, doubled into the form of a loop, with a nick cut in the part which projects. The "Sticker" is a small stake about six inches long. In setting the "Sprint" the thick end of the "Flirter" is driven into the ground in a slanting direction. The "Bender" is fixed in such a position that when a Woodcock steps upon the "Briggie" the "Pailie" is released. The "Flirter" then springs back, drawing the noose tightly round the legs of the bird, which is held fast against the "Bender." This last is sometimes pulled out of the ground. In this eventuality the captive is suspended in the air. Mr Wyckoham-Martin tells me that when rambling over the hills near Rydal, he has often come across the rows of stoncs between which "Sprints" were formerly set. These engines were generally set in damp situations, such as the Woodcock would be likely to visit when searching for worms and insects. Similar engines have been noticed by St John, Bewick and many other writers, differing in detail, but based upon the same general principle. The French used to be adroit in adapting such engines to snaring Woodcock. The "Solitaire Inventif" figures a spring of the kind just described, under the title of "Rejet." He tells us that the peasants set these trays in the neighbourhood of water. When the Woodcock sought to drink, the bird found its way blocked by the low hedge in which the trap was fixed. It searched for an opening, and was taken by the feet in the noose. Bulliard shows an intimate acquaintance with Woodcock traps, to which he applies the titles of "Rejet" and "Cercle à pied." He says that the Paris-market owed the chief part of its supply of Woodcock to this invention. He adds that shepherds guess where to trap the "Revenasse" by the "Miroirs" or droppings which are found in the haunts of Woodcock. The long rod, called the "Flirter" or "Striker" in England, is termed the "Ressort" in France. The "Briggie" upon which the noose of the "Sprint" rests, is replaced in the "Rejet" by the "Marchette." This is a single straight rod which catches the "Piquet" (or, as we should say, the "Striker") by means of a notch, at the end of which it terminates. An elastic spring of some description is nearly always employed for trapping Woodcock. The "Solitaire Inventif" indulges in a disquisition upon a system of snaring Woodcock by means of simple running nooses ("Collets"). These last are suspended in gaps which have been left in low barriers, built of broom or other plants. The

snare is allowed to rest open on the ground, supported by a few dead leaves. When the bird attempts to cross the narrow opening in the barrier it thrusts its feet into the snare. The Germans trap the Woodcock in the same way, at least they used to do so before the present era of cheap guns.

[The headpiece is reproduced from a print in the British Museum.]





CHAPTER XLVII.—PLOVER AND SNIPE.

BIRDS of the Snipe genus (*Gallinago*) are welcomed as an addition to the *coquille* all the world over. In the absence of the gun, a house-hair mouse generally proves the means of their destruction. In Poland, for example, the Great Snipe (*Gallinago scopus*), the Common Snipe (*Gallinago cristata*), and even the little Jack Snipe (*Gallinago gallinulo*) are all obtained in masses of twisted horsehair. The nooses are fastened



FIGURE 1000. TRAPS.

to long strings, which are stretched between two pegs forced into the ground. Bieszkierski informs me that the Polish fowlers use the following method of attracting snipe to any particular part of a meadow frequented by these birds. A flooring board of some length is laid flat on the ground, pressed down by stones, and left thus for a week or longer, untouched. After the expiration of this period, the board is removed,

leaving the ground smooth, and the grass yellow through want of light, and the whole spot covered with various kinds of worms. The Snipe, finding much nourishment there, assemble in great numbers, and become entangled in the snares prepared for them. Mr Blann assures me that the Dutch fowlers attract Snipe to damp places by squandering pigs' manure in the desired spot. The birds find large quantities of worms in such stuff and are thus easily tempted to feed thereabouts. Their capture under such circumstances is effected "by means of large double nets, which are pulled by a long rope. They are placed near, or half in, the water." The Germans have long been accustomed to trap Snipe by means of slip-muzzes called "Luthlöcher." These are varied according to the whim of the individual fowler. Sometimes two stakes are driven into the earth close together, each of which is supplied with a running mouse, set at such a height as to secure any bird that tries to pass through the opening. The Tuscan peasants make small trenches in wet ground to attract Snipe. In the centre of such an artificial trench they set two chods of earth, side by side, and suspend a mouse between them. Alternatively, they make a small double fence of sticks in which a snare is fixed. In the north west of England both Common and Jack Snipe were formerly taken plentifully in "Sprunts," like the Woodcock. South of Furness the Lancashire men snare Snipe by means of the engines known locally as "Purles." "They are formed," says Mr Mitchell, "of twisted horsehair, the main line or 'Ridge' being twelve yards in length, and twenty hairs in thickness, and into this the nooses, of two hairs only, and known locally as 'Gaelders,' are woven in pairs, about three inches apart. The 'Ridge' is stretched three inches from the ground, and is fastened to four pegs, called 'Nets,' fourteen inches long, one at each end, and the other two dividing it into three equal lengths or 'Boys.' Putting 'Gaelders' in order for the first time is called 'Eyoung' and setting them after they have been used is 'Tilling.' Snipe and Teal are mostly caught during the night, and in preparing the ground the fowlers shuffle along sideways, with the feet together, tramping a strip of grass about a foot in width so that in the darkness it has some resemblance to a narrow plash of water" (*Birds of Lancashire*, p. 222). The French fowlers of Belon's time caught Snipe both with snares and barbed twigs. Snipe are sometimes taken by a sort of drag-net carried by a single fowler. This is a French device. The net has a lozenge-shaped mesh and is supported on

two light rods which measure ten feet in length. A third rod, four feet long, is attached to the base of the two first poles. This short piece serves the fowler as a handle, by which to carry the engine on his arm. The fowler wends his way at dusk to some favourite "snipey" spot, and beats the ground while he carries the net about three feet off the earth. When the birds get up, they strike against the net, which is dropped so quickly over them that they have no time to escape. Lloyd states that the Norwegians take many Great Snipe on their pairing grounds by means of a "Stick-Net." The engine in question is a net of ten or twelve inches in depth. It varies from thirty to forty feet in length. It is dyed green. This net, which resembles an Italian pattern which I bought at Milan, is pegged out in a zigzag form among the tussocks of the bog which is the scene of the fowler's operations. It is said that as many as sixty Great Snipe have been sometimes taken in one night by this destructive engine. The method of netting Snipe which still prevails in the Low Countries is that of setting flight nets, generally termed "Stellnetz," in coves and in the meadows interspersed among the woodlands of the inner downs. "My friend, Mr Van Wickenroet Crommelin, assures me that in his small fowling district by Haarlem, 80 or 100 Snipe were taken in the autumn. He also adds that a Snipe might happen to fly against the net without getting entangled, in which case it would get so frightened as to hide under the nearest bush, where it could be found and taken the next morning" (*Journal für Ornithologie*, 1869, p. 279, *et seq.*)

Mr A. W. Elford of Catania, Sicily, reports a curious method of netting Snipe, which will probably be as new to my readers as it was to me. "Large quantities of Snipe," he writes, "are taken here during the winter in nets. The men who make this sport a profession form a long impedimenta about 15 to 18 inches high (where they know the Snipe feed), and at distances of 12 to 18 feet there are openings with funnel-shaped nets, and the birds, finding the impedimenta walk along and enter the nets during the night. I have often found Snipe in the nets, and once I found a Quail." It will be seen that the net in question, which is figured from a specimen kindly procured by Mr Elford, contains two funnel-shaped nets in its interior so that the birds flutter from one compartment into the other. This engine measures twenty-six inches in length, and fifteen inches in its greatest diameter.

The Dutch are adept at catching the Ruff (*Meeketes pygæus*), principally by means of snares, which are placed in the breeding haunts of this



DEUTSCHER SNARETRAP.

species. The best account of snaring Ruffs is probably that of Naumann. "The Ruffs," he writes, "are only too easily caught on their battlefields in the well-known 'Laufschwingen,' and all the more so as anyone can set these snares who has once seen them or heard them described. This contrivance consists of snares, composed of three dark or black horse-hairs, twisted and doubled. They are then—at intervals of three inches—sutured to a thin willow wand, through incisions made with a knife, in such a way that they are all in a row. The wand must be about four feet in length, and the ends of it bent so as to make it resemble a bracket; the two short ends are then inserted in the ground so that the middle and longest part is almost resting upon it. The grass alongside of the stick is then cut off with a knife. The wand is pushed still further down in the ground, and concealed in what is left of the grass. The snares are now pulled up until they stand in an upright position, in a row, touching each other. Two such sticks, placed on the arena, will make short work of it and catch all the birds in the course of a few days, as the Ruffs very easily get their feet caught in the snares. Another plan is to attach the snares to a string fastened at both ends to thin sticks which are driven into the ground. The line is then stretched out horizontally at such a height that the birds, in running under it, get their heads caught in the snares. This device is not, however, as good

as the first-named kind, as the Ruffs soon get acquainted with it, and rather avoid the place than run under the spring" (*Naturgeschichte der Vögel Deutschlands*, Vol. VII. p. 549).

The most varied series of full-breasted Ruffs that I have seen had been collected by the Molken family at Valenciennes. One of the number was nearly pure white. Mr Molken told me that he spent several days in trying to snare this bird before he succeeded in effecting its capture. In bygone years many Ruffs were snared in our own English fens, as well as in the marshes of Jutland. It seems pretty certain, however, that the English fowlers supplied the home markets chiefly with birds which had been caught alive in the Clap-nets. Pennant describes the usage of netting Ruffs in Eastern England. In his day the birds were captured in the spring of the year. The fowler first ascertained the whereabouts of the "Hills" to which the breeding birds resorted. He set his nets on this favourite ground. The engine which Pennant found in use was a single Clap-net, measuring about fourteen yards in length and four in depth. The nets were laid out in the evening. At break of day the fowler returned to his post, measuring his distance from the nets, according to the relative timidity of the birds, which were considered to grow wilder as the season advanced. The fowler caught whatever birds chanced to have congregated within reach of the net at the first pull. The remainder of the morning was spent in netting such birds as happened to join company to the stuffed birds, or "Stakes," which were placed about the ground fowling-floor. The number of birds taken was at times considerable. An old fowler informed Pennant that he had once caught forty-four birds at the first pull of his net.

Montagu like Pennant, took some trouble to investigate the Ruff-catching industry. He found that the capture of this species was by no means confined to the spring of the year. Indeed, he observes that "Few Ruffs, comparatively speaking, are taken in the spring, as the old birds frequently pine, and will not readily fatten. The principal time is in September, when the young birds are on the wing; these are infinitely more delicate for the table, more readily submit to confinement, and are less inclined to fight." But he also tells us that some birds were taken in the spring, a fact which Pennant had already made clear. "The net is what is termed a single clap-net, about seventeen feet long, and

six feet wide, with a pole at each end; this, by means of uprights fixed in the ground, and each furnished with a pulley, is easily pulled over the birds within reach, and rarely fails taking all within its grasp; but in order to give the pull the greatest velocity, the net, at circumstances permit is so placed as to fold over with the wind." Montagu interviewed a noted Rail-feeder named Tenars, who lived at Spalding. This worthy boasted that his family had fattened Ruffs for a hundred years, supplying birds to George II, as well as to many of his subjects. But the Lincolnshire men did not content themselves with fattening Ruffs. The Knot (*Tringa montana*) shared the same fate. The birds were induced to alight within reach of the nets by the agency of wooden dummies. As long ago as September 1555, G. St Paul sent from Chelton in Lambey to the Earl of Rutland a present of "Three dozen of feld knottes with other fowle."

The employment of nets and snares for capturing Waders is not by any means confined to the Polynesian region. The Greenlanders catch the Purple Sandpiper (*Tringasterula*) by means of snares of fine whalebone, secured in the desired position by a peg inserted in the ground. More singular is the system to which the Maoris resort to effect the capture of the Eastern Bar-tailed Gull (*Larus macrorhynchos*). Bulker notices that the Maoris catch large numbers of these birds by spreading flax snares horizontally on manuka sticks twelve or fifteen feet high, arranged in the following way—"A number of stakes are driven into the ground at equal distances, so as to cover the area of the customary resting-place. A perfect network of flax loops or running nooses, about twelve or fifteen inches in diameter, are then spread or hung in such a way as to form a canopy or roof supported by the stakes. The birds on assembling in the evening fly low and take up their position on the resting-place to wait for the old of the tide. At this conjuncture, the natives spring out from their concealment with lighted torches. The birds at once rise vertically in confusion and alarm, and large numbers become entangled and caught in the running loops, sometimes as many as 200 being captured at one time in snares covering a space of twenty by forty yards. These snares are only set on calm and dark nights for the obvious reasons, that if there was any wind, the loops would become disarranged, and that on moonlight nights the birds would see the nets and avoid them" (*Birds of New Zealand*, Vol. II, p. 43).

The Golden Plover (*Charadrius pectoratus*) appears to have been a special favourite bird in the capitals of mediæval Europe. Belon dilates at considerable length upon the craft of Plover-catching. The chief means of its capture in England, France, and Italy was the Clap-net. The French peasants believed the flocks of migrating Plover, which annually visited their country, to be led by certain individuals. Such a leader was called in their patois: *le Roy des Pluviers*. According to the same naturalist, it was the custom of the French fowler of the early part of the sixteenth century to lay his toils in a suitable spot for intercepting a flock of Plovers. His companions were detailed off to drive the birds gradually up to the neighbourhood of the nets. The "Solitaire Inventif" seems to have regarded Plover catching as a serious undertaking, to judge from the space at which the subject is treated in the pages of the *Récreations*. He tells us how to study the winds which govern the movements of these birds and what kinds of hard-whistles are most effective in luring them to the nets. The Clap-nets are pitched on some grassy plain or in a field of young corn. Either a single net or a pair of nets can be used, at the convenience of the fowler. The birds are tamest in October, and again when pecking in the month of March. Master Thomas Stodham (if he be the author of *A Jewell for Gentries*) seems to have been pretty well versed in the art of netting Plovers. "It is," he says, "the nature of the Plover, especially the gray, which is ever the best and most daintiest, to fly together in shoales or companies and for the most part they wil after feeding haunt one place. The nets wherewith you shall take them, differ nothing at all from the Day-nets, eyther in shape or manner of laying, onely they must in quantitie be full as bigge againe every way as the Day-nets are; therefore when you have found the morning or evening haunt of plovers, you shall lay your nets in the selfe same manner as I shewed you for the laying of the Day-nets, and as your nets are larger so your distance from your nets must be bigger and longer, and your selfe must be closer, for if you can embrace it, it is best to lie flat on your back, with your hands on your sides betwene your legs, your stile must be a quicke plover. The hour for the laying of your nets, is a litle before day in the morning, and a litle before the day be gone in the evening. for the flight of Plovers is at the spring of day, and at the closing up of the day, when you may onely see and no more. I have seen at one pull a dozen, and some times two dozen taken, they

come so close and thick together. As for the green Plover, he is easier to be taken, either with lime twiggies or any other grimes as hath been formerly shewed unto you." Savi explains that the Tuscan peasants, like those of France, decoy the Golden Plover up to the nets by imitating the plaintive whistle of this Plover with a bird-call made of a sheep's tingle-bone partly filled with wax. The Italian endeavours to conceal his bag Clap-nets in the grass or even spreads them in a few inches of water. The fowler and his mate work the nets from a little tent, made of dark-coloured cloth. Stuffed dummies are set in the centre of the nets, or round about it, with their heads turned to the wind. A live "Fifa" or Peewit is attached to a phylod to be worked as a lure. When the nets are set in water the presence of two men is indispensable, since the nets cannot otherwise be closed with sufficient rapidity. It is usual to attach to the pull-rope or "Tanto" a long handle known as the "Mammecchia." This is grasped by a couple of men, who by pressing their feet hard against a board stretched across two heavy beams, can produce the force needed to pull the nets together in a moment. The Golden Plover do not usually pitch in the nets as soon as they have begun to answer the call of the birdcatcher. It is therefore necessary that they should be gently driven up to the nets by a third man, who is called the "Pantore." This sport is most fatiguing, but plenty of Italians are glad nevertheless to earn a living by Plover-catching. The Peewit (*Pandanus calopryx*), the "Wye" of Old England, is pursued in the same way as the Golden Plover. Di Vall figures a pair of double Clap-nets for catching the "Pauoucelli," as he phrases one of its Italian names. Savi calls the bird the "Fifa," because that is the name commonly conferred on the Peewit at Pisa, but this species has about a score of different names in Italy. Di Vall observes that the season for netting Peewits begins on All Saints' Day and terminates on St Catherine's Festival. Mr Blann tells me that quantities of Plover are netted in Holland. "A single net is worked at some distance by a man who sits against a screen made of rushes, not so much for concealment as for shelter against the wind. Round the net stuffed birds are placed, and a live bird is fastened there in such a way, as to enable the man to make it fly up at wish. When plovers are heard in the distance, the man calls them by imitating their cry, and when they come near he makes the live bird fly up. A *Pandanus cristatus* is generally used for this object, as its

wings, being white at the inside, are very conspicuous. The wild birds come near and when they fly over the net, they are caught by its being pulled over them."

I am not aware that either Green or Golden Plover are now netted in England by means of Clap-nets. An interesting description of how the former birds are netted in Ireland will be found in Sir Ralph Payne-Gallwey's *Wildfowling in Ireland*. An East London birdcatcher assured me that he once netted a few Dottrel on an Essex marsh, when catching Skylarks with a Drag-net. This is not inconsistent with the report which our countryman, Dr. Cams, furnished to Gesner, "*Dr. Morinello Ave Anglica*." Cams said that, as the Dottrel (*Charadrius aurantius*) was a tame bird and excellent eating, it was usual to effect its capture. The fowler went out to catch Dottrel at night, provided with a lantern and a net. While the Dottrel was dazzled by the rays of light suddenly concentrated upon it, the fowler covered the bird with his net. Dr. Cams added to this reasonable explanation a legend that the Dottrel watched and imitated the movements of the fowler, but this detail was evidently due to a stroke of fancy, for no dumb bird would perform such unusual gestures (*Gesneri Hist. Avium*, Vol. i. p. 614). It is seldom that the birdcatchers of our south coast catch any Waders in their nets. I once had a live Little Stint (*Pempe. minuta*) brought to me, which had been netted near Shetland. It was a charming diminutive Sandpiper, all its actions being easy and fearless. In Italy the Little Stint is caught quite commonly in Clap-nets in the months of May and September. The Tuscan fowlers catch many other Waders in the large "*Rete aperte*," which they work in their marshes. Thus the Black-tailed Godwit (*Limosa melanotos*), the Curlew (*Numenius arquata*), and the Whimbrel (*Numenius phaeopus*) assist in swelling the harvest of the fowler.

Professor Giglioli has most obligingly obtained for me a plan of the large "*Rete aperte*" used at the present time for the capture of gregarious Waders on the lake and marsh of Montepulciano. The manipulation of these nets appears to be identical in almost every respect with the nets used for small birds. The nets for Waders measure about seventeen metres in length, and are supported on stakes measuring two metres each. Signore Giuseppe Paver, to whom these nets belong, explains that there is a space of metres 2.80 between the two nets when these are

pegged out. It follows that when the nets are pulled, one of them must partly overlap the other. The nets are always set in the face of the wind ("Vi tenda sempre in faccia al vento").

In most of the other countries of Europe the capture of shore-birds is effected principally by the agency of Flight-nets, set perpendicularly across the route which the birds are expected to take. The use of these nets has extended in our own time to the Dumfriesshire coast; otherwise, I believe that their manipulation is unknown in Scotland. In England the use of these nets has latterly tended to become obsolete, especially on the Lancashire coast. I have conversed with several of the old Lancashire fowlers. These men spoke of the Gystencatcher (*Himantopus cristatus*) as one of the species which they took most plentifully on the sandy flats of the county Palatine.

The nets used on the west coast of England vary in depth from three and a half to six feet. They are suspended upon rods stretched between poles, which are set in the ground about fifteen yards apart. Irving Murray has used such nets on the Scottish side of the Solway Firth for a good many years. He tells me that he finds it necessary to shift the nets from one position to another occasionally. He lives in a cottage on the shore, and his "better half" walks down the sand at daybreak to take the birds out of the nets. It often happens that there is nothing in any of the nets except an odd Dunlin or a few Sea Gulls; but enough birds are taken in the last three months of the year to remunerate the old couple (the man is a Crimean veteran) for their expenditure upon the netting.

This system of netting sea-birds is pursued with much more deadly results on the Wash and on the Lincolnshire coast. The flights of birds which constantly visit the east coast of England from the Continent afford the netter opportunities of taking a hundred birds or more in a single stormy night. Mr Blauw tells me that the use of Flight-nets is very successful on the Dutch coast. Perhaps the best idea of the system adopted on the coast of Holland and North Germany will be obtained by a reference to the paper of Baron Ferd. v. Draseo (*Journal für Ornithologie*, 1869, p. 279). "Late in the autumn of 1868," says this writer,

I learned how to net birds by means of the 'Stellnetz' in the Island of Borkum. Though the net is used in the province of Friesland as well as in the Low Countries generally, yet I never had any opportunity of

seeing how it worked, for whenever I asked the owner of the net to try it, he put me off with all kinds of excuses, as the weather being unfavourable, the moon not just right or too much work to be done. It was also very difficult this year and cost me a good deal of money to get on the way with a whole waggon full of nets, poles, and ropes. Setting out for the 'Watts' (or the uninhabited and barren marshes which extend far beyond the dykes, and are daily washed by the sea) we took the way straight across the meadows until Borkum and Ostland were behind us. East of these grassy regions, and a good way on the other side of the plains, covered with the slippery *Schizocarpus baccatus*, we halted to stretch our nets. They are made of pack-thread, with large meshes, and are about fifty feet in length and fifteen feet in depth. They are set vertically, one joining the other, so as to form a wall, the longer the better.

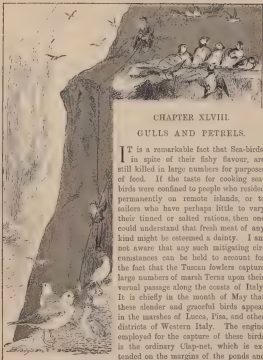
My eight nets formed a wall 445 feet long. The nets are stretched between two poles, by means of a taut rope at the top, and below by a slackened line, so as to make the net swell or 'Belly' to some extent, though not excessively. The two end poles are now inserted in the ground, while the other poles, between the different nets, are held in an upright position by means of ropes fastened to the ground. This is done that the poles may be laid down flat, so as to bring the top of the net within the reach of the fowler. These supporting lines are fastened in a very original fashion. A rope is tied round a bunch of seaweed and buried securely in a hole dug in the marshy soil, only a loop of the rope appearing above ground. The lines sustaining the poles are made fast to these loops, and I have seen sufficient proof that this mode of fastening will resist even the most furious wind and waves."

Baron Droste tells us that he caught Oystercatchers and Dunlins (*Tringa alpina*) in his nets every night in October, and Curlews very frequently. Other species of Waders were seldom taken in his nets, but he reports that in certain years Golden Plovers, Gray Plovers (*Squatarola beldingii*), Godwits, and other shore birds are meshed in large numbers both in spring and early autumn. "It is interesting," he adds, "to notice the different heights at which the different species are caught in the net. The Crows and Sea Gulls were almost without exception hanging near the upper edge; Oystercatchers, Sandpipers and

Flowers generally in the middle, Ducks in the lower part; and the Brent and Curlew quite near the earth. These observations help to inform us at what height the different birds fly over the 'Watt' at night."

[The headpiece has been drawn to illustrate the Maori method of snaring Gulls when resting on sandbanks. The tailpiece represents Ruff netting in England, as carried on early in the present century.]





CHAPTER XLVIII.

GULLS AND PETRELS.

IT is a remarkable fact that Sea-birds, in spite of their fishy flavour, are still killed in large numbers for purposes of food. If the taste for cooking sea-birds were confined to people who resided permanently on remote islands, or to sailors who have perhaps little to vary their tinned or salted rations, then one could understand that fresh meat of any kind might be esteemed a dainty. I am not aware that any such mitigating circumstances can be held to account for the fact that the Tuscan fowlers capture large numbers of marsh Terns upon their vernal passage along the coasts of Italy. It is chiefly in the month of May that these slender and graceful birds appear in the marshes of Lucca, Pisa, and other districts of Western Italy. The engine employed for the capture of these birds is the ordinary Clap-net, which is extended on the margins of the ponds and in flocks. The birds are allured into the

marshes which these birds visit

nets by the employment of captive individuals, which are fastened to the ground. As many as thirty and even forty birds are sometimes taken at a single pull of the net. The species which supplies the bulk of the victims is the Black Tern (*Hydrochelidon nigra*). The rarer White-winged Black Tern (*Hydrochelidon leucophaea*), and even the Whiskered Tern (*Hydrochelidon hybrida*), are subject to the same miserable fate. Professor Gaglioli tells me that he has seen the White-winged Black Tern flying over the Arno at Florence in the month of May, in all the beauty of its newly acquired summer livery. It is melancholy to think that such a lovely creature should be subject to the risk of being netted for the market. Alas! bags of these poor Terns are, or at any rate were recently, taken to the local poulterers, generally dismembered by having their wings torn off. The fowler's motive for removing the wings is to lessen the weight upon which duty has to be paid. A tax is levied on all birds carried into Pisa and other cities according to a standard of weight. Four Black Terns are sold as a bunch for two soldi. Many, again, are hawked about the streets in a living state, in order that they may be sold for young girls to use as playthings. The Little Tern (*Sterna minuta*) is frequently taken in the Maremma, like its congeners.

Fabricius states that the Greenlanders of his day adopted snares, made of whalebone, as a means of capturing the Arctic Tern (*Sterna Arctica*) and the Kittiwake (*Rissa tridactyla*). Their method was to suspend a small fish from a wooden buoy, and to fix several whalebone snares around the bait. When the bird, in its downward flight, attempted to seize the fish it generally became entangled in one of the snares. If the fowlers wished to leave the spot, they fastened the wooden buoy to a lump of seaweed, so that if a bird was caught during their absence it could not effect its escape. This variety of snare was usually set near the great floes of ice, because the Terns and Kittiwakes assembled in such places in great numbers. The Greenlanders did not hesitate to snare larger species, such as the Glaucous Gull (*Larus glaucus*), but these birds often visit the vicinity of settlements on that ice-bound coast, and are, or were, chiefly captured by the instrumentality of a hook concealed in a lump of blubber, or thrown into the water at the end of a line secured on shore. Even such a rare bird in British waters as the Ivory Gull (*Pagophila eburnea*) has been taken by the simple expedient of a baited

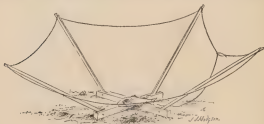
fish-hook. The Greenlanders sometimes find a substitute for the hook in the shape of a short wooden skewer. This is sharpened at both ends, and concealed in the tempting bladder. When the poor bird gauges the sallow morsel of fat, the piece of wood becomes fixed in its throat and asphyxia follows. I am indebted to Mr W. H. Watel of Algiers for an account of a snare used on the coast of that country for catching a species of Gull. The bird is in request among the fishermen on account of the use which they make of its white-spotted wing-feathers in dressing a fly for the *louta* (*Elegance pelagica*). The snare in question is made of strong thread, and is set in the following way:—"The fowler cuts two alfa twigs about nine inches long, and inserts them in the sand about



ALBATROSS GULL-SNARE.

eight inches apart, at an angle of 45 to 55 degrees, and parallel to one another. He then takes a yard of thread and makes a loop half an inch long, and makes a noose of it sufficiently long to go over the tops of the alfa, allowing for the lower part to be buried in the sand. The other end of the thread should be tied to a stone or a piece of wood, and buried in the sand. A small fish is attached to the snare as a bait, and when the Gull swoops at the food, he is caught by the simple thread.' The courtesy of Mr W. C. Tait of Oporto has supplied me with a curious trap for Sea Gulls, which he was good enough to bring to England for the benefit of this work. It consists (as will be seen from the illustra-

tion) of a pair of short sticks in the form of a cross, at the end of which are hinges, on which there play four longer sticks, which serve to support a string bearing a noose. To the centre of the cross a sardine is secured as bait. When the snare is set upon the sea-shore the trap is carefully



PORTUGUESE GULL-SNARE.

buried under a light layer of sand, the sardine alone being exposed to view. The Gull pounces on the sardine, and in so doing jerks up the cross to which the fish is attached. This action throws up the ends of the arms bearing the noose, which thus falls over the neck of the bird. Mr. Tait remarks that another dodge for catching Sea Gulls is to set a brass wire noose like a rabbit "gin" when a strong wind is blowing. A sardine is placed to windward of the noose. As the Gull approaches against the wind, and tries to lift the sardine off the sand, it is taken by the snare. A third method practised on the coast of Portugal is to stuff a sardine with cork and use it to bait some fish-hooks, which thus float upon the waves and attract the attention of any passing Gull. Gull-catching is not much in favour in Germany. Bechstein tells us that Kittiwakes are occasionally caught in late winter by setting snares or a net on a spot from which the snow has been cleared away.

A time-honoured method, which lingered into our own day among the islands of Scotland, was that of effecting the capture of the young before they could fly. This fact receives an illustration in the accounts kept at Naworth Castle in the early days of the seventeenth century. The birds

supplied to the Howards were no doubt examples of the Brown-headed Gull (*Larus rubricaudus*). They were procured from such considerable distances as to render it evident that they were reckoned by no means contemptible fare. But the young were not always eaten when they were taken from their nesting grounds. In the accounts for the year 1618, an entry stands to show that the sum of sixpence was expended in building a house for the "gulls and hernsues." This house took Andrew Creak two days to make. Six years later, an entry appears in the same accounts, of the expenditure of twopenny upon a knife which was required for the purpose of cutting the "gull's meat." The Orkney folk used to kill large numbers of young Gulls on their islands. Penn tells us that these birds were killed for salting down, and for the sake of the feathers (*The Ornithologist's Guide to Orkney and Shetland*, p. 68). Audubon similarly informs us that the fishermen of Labrador and Newfoundland used to kill great numbers of the Common American Gull (*Larus delawarensis*), and pack them in salt for winter use. The Flight-nets which are set upon many portions of the British shores, and which some of us think should be prohibited by law, are very detrimental to Gulls and Terns. Great numbers of these birds are entangled in the long walls of net which line certain foreshores. The species of Gull which, in my personal experience, most frequently drifts into these stake-nets is the common Brown-headed species. Colonel Fielden records the fact that a no less distinguished visitor than an immature Sabine's Gull (*Sterna sabini*) was caught in the shore nets at Wells in Norfolk, on the 16th of October 1892 (*Zoologist*, 1892, p. 423).

Belon tells us that his countrymen were in the habit of capturing 'la petite Mavette blanche' by means of a wooden cross, which floated upon the water with a small fish placed in the centre as a bait. The fowler attached four twigs smeared with haddling across the four ends of the cross, so that when the hapless bird pounced upon the bait, it was held a straggling prisoner. Ducks and even Kites were taken in the same way. The Greenlanders in the time of Fabricius were in the habit of killing Hutton's Skua (*Stercorarius parasiticus*) with their tombarrows, paddling softly within range when the bird was sleeping on the sea.

Certain species of the Petrel family (*Pterodromidae*) have long been utilised as food by the inhabitants of remote islands. The Fulmar (*Fulmarus glacialis*) in particular furnishes the crofters of St Kilda with

a large portion of their provision for winter. Numerous examples of this widely distributed Petrel fly to and fro across that portion of the Atlantic swell which separates St Kilda from the opposite coast of Harris all the summer long. I know few prettier sights than that which is afforded by a fleet of Fulmars following in the wake of some vessel. Every bird in the company seems to rise and fall in the air without the least apparent effort. Many of these birds have nests upon the crags and rocky excarpments of St Kilda. The island fowlers take a number of Fulmar eggs for domestic purposes. It is the young birds which yield the most valuable returns. Martin tells us that the young Fulmar is hatched in the middle of June, and is ready to take wing before the 20th of July (*A Voyage to St Kilda*, p. 56). But this seems to me to be incorrect. I once persuaded old Donald Macquien to go over the rocks, and bring up two or three young birds from the breeding ledges of Connacher. The birds which he brought up to us, as we stood on the edge of the cliff, were not more than a week old. One of them was much less. Yet this happened on the 10th of July. Nestlings have been sent to me in other years. Those taken in the first half of August still retained the soft, pale grey down upon their bodies. The nestlings are very fat, and are more in favour for food than adults.

It has been alleged that the St Kilda folk used to light their houses by burning wicks which had been drawn through the bodies of young Fulmars. I have never been able to obtain any corroborating evidence, and am disposed to regard the statement as a traveller's tale. Of course, the St Kilda men use the oil of the Fulmar for lighting purposes. Kenneth Macculay was assured that nearly a pint of oil could be obtained from one single Fulmar. The oil was sometimes burnt in the cavity of the *stewens* of the Solan Goose. But until iron lamps were introduced into the island, prior to 1840 stone lamps were chiefly in vogue. A lamp which I gave to Mr Edward Bidwell is simply a circular stone, one side of which has been hollowed out, thus providing a shallow cavity in which a small wick could burn. In Macculay's day each of the families which inhabited St Kilda adored their own share of Fulmars. The whole amounted to about twelve barrels. The young birds, then as now, were taken in the month of August, just before they were able to fly. My friend Mr John Mackenzie, the factor of St Kilda, has kindly ascertained for me the precise number of Fulmars and other fowl con-

sumed upon St Kilda every year. The fowlers at the present time make sixteen shares. They assign to each share the following number of birds: 80 young Gannets, 120 adult Gannets, 560 Fulmars, 600 Puffins, 120 Common Guillemots, and 50 Razorbills: making 1530 birds for each share. This reliable estimate gives us a grand total of 24,480 head of Seabird sacrificed to feed the people of St Kilda annually.

A good many adult Fulmars appear to be killed by the St Kilda fowlers during the breeding season, which, by the way, is the only time at which these birds frequent the ledges of the precipices. The engine by which the adult Fulmars are obtained is the fowling-rod.

A rod which I brought back with me from St Kilda measures about six feet six inches in length. It differs in no respect from a plain spear, except that its upper extremity bears a slip-nose mounted on a switch. This nose is made of horse-hair, and is plaited together with strong quills: probably those of the Gannet. When a fowler decides to catch a few Fulmars for the use of his family, he goes to his own portion of the cliff, accompanied by one companion. They have no other apparatus for effecting the descent but a strong hempen rope. When they have arrived at the edge of the cliff, one man sits down upon the edge of the cliff, holding the rope by which his mate is to descend. The man who carries the fowling-rod then climbs over the side of the precipice. He cautiously worms his way along the precipice, intent only upon surprising the birds in their rocky fastnesses. Any sudden movement would be likely to alarm the sitting bird. The fowler is obliged to stalk his intended victim, creeping nearer and nearer, until he is able to drop the nose over its neck. One quick jerk and the bird dangles helplessly in the fatal noose. It will be easily understood that no one but a practised cragsman could venture to engage in so perilous an occupation as that of snaring Fulmars on their breeding precipices. The St Kilda men are rightly proud of their prowess in climbing. It must be admitted that they have to face considerable peril in landing upon the outlying stacks, for the swell of the Atlantic supplies an element of real danger. My friend Mr Cherry Kearton is probably a bolder



St Kilda
Fowling-rod.

than any of the natives of St Kilda, but then he is a splendid athlete, who has trained every part of his body for muscular exercise. Certainly he has scaled crags which the St Kilda men considered too hazardous to be attempted. But the St Kilda men of the present day are a fine set of fellows, and begin to climb the rocks at a very early age. When Martin visited St Kilda in the summer of 1697, the fowlers only possessed three ropes, each of which measured twenty-four fathoms. These ropes belonged to the community and could only be used by common consent. In order to protect the ropes from being cut by sharp rocks, the hempen strands were covered with long strips of salted cow-hide. The St Kilda men used formerly to kill a good many Shearwaters (*Puffinus anglicus*), taking the birds out of the nesting-holes in which many of them pass the day in the breeding season. The demands of egg-dealers have led to this species being almost banished from the mainland of St Kilda. One bird was taken in a precipitous spot upon Doon in 1896, but the main colony of Shearwaters is to be looked for upon another island, which is exclusively in the hands of Macleod of Macleod. It is, therefore, seldom visited by the crofters.

Formerly, they used to take the young Shearwaters from their holes just before the birds could fly. The nestlings became enormously fat, and were reckoned to be a dainty dish within the recollection of many people still living in the Hebrides. There is a large colony in the Island of Rigg. I clambered among the barrens of the 'Falag' on various occasions when visiting that island. The people told me that they used to bod some of the birds, and salt others for winter use. The birds were ranked until their decreasing numbers and the dangerous nature of the places to which they retreated made it a tiresome task to harry their colonies. The custom of salting Shearwaters was not peculiar to Rigg. The crofters of Mingalay used to pay their rent to the Macneills of Barra in barrels of salted Shearwaters. But it must not be supposed that Englishmen or Irishmen have shown more mercy to the Shearwater than the fowlers of Western Scotland. The species has been long marked out for persecution. Walloghly records the fact that the Shearwaters which bred upon the Calf of Man in his day used to be systematically ranked. As soon as the birds arrive at their full size, "they who are intrusted by the Lord of the Island draw them out of the Crag-holes, and that they may the more readily know and keep account of the numbers they take, they cut off

one foot and reserve it . . . They usually sell them for about nine pence the dozen, a very cheap rate . . . Notwithstanding they are sold so cheap, yet some years there is thirty pounds made of the young Puffins taken in the Gulf of Man' (*Ornithology*, p. 333).

Père Labat gives a long description upon the diversion of hunting some species of Petrel in the mountains of Guadeloupe and Dominique. The birds were stalked by negroes, who employed dogs to find the burrows of the Petrels. Each fowler carried a long switch armed with a hook. When the dogs began to scratch at the entrance to a burrow, one of the fowlers would insert his fowling-rod, using it to push the bird within. Thus rudely aroused from its diurnal slumber, the Shearwater seized the end of the rod, and so was drawn forth from its hiding-place. When the negroes had secured as many birds as they wanted, they lighted a camp fire, before which they roasted the Petrels upon wooden skewers (*Pagages aux Isles de l'Antiquité*, Vol. II. p. 349). The Dusky Shearwater (*Puffinus obscurus*) was formerly caught in large numbers in its breeding-places among the Bermudas. The slender-billed Shearwater (*Puffinus tenuirostris*) is, or was, taken among the islands of Bass's Straits in prodigious numbers. Mr H. Elwes records that birds of this species arrive on the islands about the 21st of September, and proceed to clean out their old burrows. The sailors notice the runs of the birds, and dig a great pit in one of the main runs, with small fences leading down to the pit. When the day of doom breaks, the birds are driven at dawn along their accustomed track, which on this occasion terminates in the hollow devised for their destruction. The birds are handicapped by their short legs and long wings. They crowd together in confusion and perish miserably (*Ibid.*, 1859, p. 398). Elwes affirms that as many as 56,000 birds have been killed in one season.

The Maoris have a strong predilection for the young of different kinds of Petrels. Buller states that large quantities of Forster's Shearwater (*Puffinus forsteri*) are obtained upon Whale Island. As many as four and five hundred birds have been slain in one day, to be potted in their own fat. Another bird which the Maoris favour is the Sooty Shearwater (*Puffinus griseus*). There exists several breeding-places of this bird upon the south-east coast of Otago and on Stewart's Island. Large supplies of potted birds are annually drawn from these colonies and forwarded to the northern tribes; a "Pohu titi" or cask of preserved

Petrel being esteemed a gift worthy the acceptance of the highest chief (*Birds of New Zealand*, Vol. II p. 233). The smaller kinds of Petrels do not appear to be much persecuted in the breeding season, with the single exception of the Fork-tailed Petrel (*Phaethodroma lineata*). The miserable custom of filling cabinets with empty egg-shells—many of them purchased from dealers, does far more to exterminate so-called rare birds in Britain than the occasional destruction of a stray waif, the presence of which would never have been recognised but for the incident of its being shot. The St Kilda men have been so demoniacalised by egg-collectors that they offer numbers of eggs of this Petrel to visitors for a shilling apiece. They likewise catch the old birds and keep them without food for many days, on the chance of selling their poor little victims to tourists. The birds are taken from their burrows in the most inaccessible parts of the island of Doon.

It is a common amusement on sailing vessels to endeavour to capture Wilson's Petrel (*Phaethon aeronautes*) and other little Petrels. The *modus operandi* is very simple. It consists of tying a number of long threads to pieces of cork or other floats, which are thrown into the sea in the stern of the craft. The free ends of the thread are tied to the poop. The Petrels fly in the wake of the vessel, consequently they often come into contact with the threads. When such is the case, the birds become entangled—but they soon effect their escape unless they are dexterously hauled on board. Mr Meade Wale records that the White-faced Petrel (*Phaethodroma leucorhoa*) is occasionally captured by the fishermen of the Canary Isles, when attracted by the torches which these men use at night. Sailors often wile away the tedium of ship-life by fishing with hook and line for the larger kinds of Petrels. I have amused myself by catching an old Fulmar on a hook baited with a herring's tail. The Wandering Albatross (*Diomedea exulans*) is the largest of the species captured in this familiar fashion. I inquired one day of a distressed mariner what purpose a captive Albatross could possibly serve. His reply was that it might be converted into a no less captivating dish than a 'Three-decker pie'. He assured me that upon a certain voyage to Kaitia, he and his mates caught no fewer than *one hundred and fifty* Albatrosses; a piece of conduct which perhaps accounted for their vessel suffering shipwreck. He avowed that all his victims were disposed of upon utilitarian principles, viz., that they were made into pies. He added that the most approved

method of cooking an Albatross is to cut off the pectoral muscles and other fillets, after the carcass has been hanging for a few days in the rigging of the ship, exposed to all the winds that blow. When it comes to the cook's turn, that worthy procures a supply of flour, a quota of potatoes, and a supply of "slush," *ie.*, the fat removed from salt beef or salt pork. The cook provides a large saucepan, and lays a solid foundation of potatoes at the bottom of the pot. This is succeeded by a layer of Albatross, which is again followed by a stratum of the flour which has been metamorphosed into paste by the medium of "slush." And so the "Three-decker" is built up in three courses upon a base of potatoes, which at all events are not poisonous. A somewhat similar recipe is followed by the Heligoland housewives, when they aspire to making a Kittiwake-pie. This dainty dish is composed of pearl barley and Kittiwake in equal layers, crowned by a superficies of dough sprinkled with raisins. It is cooked for three hours in a baking oven, and served up at the mid-day meal (*Birds of Heligoland*, p. 553).

[The capture of the Fulmar is illustrated in the headpiece of this chapter from specimens procured at St Kilda. Messrs Kearton most kindly lent two of their photographs for the assistance of the artist.]





CHAPTER XLIX.—AUKS AND DIVERS.

THE DIVERS (*Colymbidae*) are eagerly sought after by the inhabitants of arctic regions. Not only is their strong flesh held in some esteem but their warm and handsome feathers are recognized as a useful addition to the wardrobe of the Indian or the Esquimaux. Formerly the bow was chiefly used for securing "Loons," as the different species of Divers are popularly entitled. Of course the gun is now superseding all the ancient methods of the chase. But until firearms appeared on the scene the bow and arrow, and the bird-arrow or javelin, were the weapons directed against the Great Northern Diver (*Colymbus glaucus*) and other members of its family. There is evidence to prove that birds which had been wounded on the west side of the Atlantic have travelled across the ocean to be killed on the coast of Ireland and in the Faeroes with arrow-heads embedded in their flesh (Newton, *Dictionary of Birds*, p. 153). Hind tells a good story concerning the fortunes of a Loon-hunter in Labrador. It is the custom of the Nasquaps to go in pursuit of the Loon in their high-bark canoes. One man paddles the canoe within shot of the Diver, while his mate shoots at the quarry from behind a bush or branch of a tree placed in the bow. The success of the fowlers depends largely upon the faithfulness with which the Indians are able to imitate the wild cry of the bird, for it is only by that means that the bird can be induced to allow a close approach.

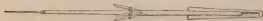
Upon the occasion referred to by the explorer, a marriage had been arranged. Seals, loons, and a porcupine had been provided for the nuptial feast. The priest who was to tie the knot had arrived, and all things were ready. The bridegroom donned his best attire. The guests waited eagerly at the chapel door, but the maiden was not to be seen. A search party was sent out to seek the way-dancer, for whose presence all eagerly longed as the feast was in readiness. The faithless belle was found eating cranberries on the edge of the forest. Her anxious friends inquired the reason of such extraordinary conduct. She replied—'Do you think I am going to marry *Aras*?—he can't call a lion! I heard him yesterday, and he frightened the bark,—he may find another wife.' Happily the Indians proved equal to the occasion. It was decided to eat the feast just as if the wedding had taken place. "The company at once repaired to the lodges, and abused the inconstant maiden over the seals, the loons, and the porcupines." (*The Labrador Peninsula*, p. 348).

Mr Pritchard, of the Lac-Scul Mission, tells me that the Indians of his station sometimes find a Great Northern Diver entangled in their fishing nets. This incident has often been reported in Kamque, with respect to both the Great Northern Diver, the Black-throated Diver (*Colymbus arcticus*), and the Red-throated Diver (*Colymbus septentrionalis*). Willoughby writes that the Icelanders of his day were in the habit of snaring the Great Northern Diver. "They fasten two stakes at the entrance of the Nest, upon which they hang, and so accommodate the Snare, that the Bird going to her Nest may thrust her head into it. Or they cross the Pool where she frequents at its narrowest part with a fishing line, so that one on each side holds it, raking therewith the surface of the water, till the bird fearing some danger towards dives down to the bottom, then observing the place where she is rising up again by the circles there made in the water, thither they direct and there hold a snare fastened to the line, that coming up out of the water she may put her head into it, and so be caught by the Neck" (*Ornithology*, p. 343). Mr Hugh Popham ascertained for me that the Red-throated Diver is taken with snares in the neighbourhood of the Yenesei River. The method by which the Samoyedes secure this bird in the breeding season is to spread a slip-nouse over the nest, with a long line attached. The long line is carried into the high grass, where it is pulled by the fowler,

who lies in wait for the bird's return to its nest. Mr Popham observed this use of the snare near Gledhika, the last village on the Yenesai. The Gledhes (*Pelecanoides*) have long been persecuted for the sake of the beautiful downy plumes of their breasts, especially upon the Swiss lakes. Gesner remarks that these birds were hunted on a lake near Zurich on a certain day in August, which was consequently known as 'Tuchelhar.' The birds were moulting and incapacitated from flying strongly. They were therefore driven into the great nets which were extended for the purpose of intercepting them when endeavouring to escape from their pursuers. Leonard Massey describes a device for capturing the 'Dobchicke' or Little Gledhe (*Peleage, pinnatilis*):—'Howe for to take them, the fisher men some doe use to lay on the water long lines of small thinges knit full of little corkes, a handfull a sunder on the line, and cut more square like luggs: doe and so lined and fold on anckle (a tickle), as I shall shewe hereafter: and where they see them hunt, they will spread the saide line afore them on the water and then with their boats, drive them to the sayd line and so many are taken. Thus much for taking the Dobchicke.'

It is to the family of Auks (*Alce*) that the fowlers of remote islands have commonly looked for subsistence. This circumstance is not to be accounted for by the delicate flesh of the sea-fowl, but by the consideration that these birds assemble together in such myriads, both on land and sea, that it is possible to kill them in almost unlimited numbers. The sad fact remains that one member of the family, the Great Auk (*Alca nigripennis*), proved unequal to resist the demands that were made upon its resources. Had the Gledhe-fowl been able to fly, no doubt it would have remained our prey until this very day. Tradition asserts that the Greenlanders killed the Great Auk with their bird-arrows. But whether the coast of Greenland was ever visited by the Great Auk is unknown to me. It is probable enough that the Great Auks which were killed and eaten in Denmark in pre-historic days may have been killed with the ancient bird-arrow. The extinction of this species within the historic period was mainly effected by the mariners, who clubbed the birds when driven into pounds upon the islands which they frequented. The bird-arrow to which reference has just been made is rapidly becoming obsolete even in Greenland. The gun supersedes almost every weapon of antiquity. I feel all the more grateful to Mr Hagerup and Dr Helms

for the pains which they have taken to procure for me a Greenland bird-arrow. The arrow proper consists of a piece of iron twelve inches in length, which is barbed at a short distance from its fine extremity. The other end of the arrow is fixed in a round wooden staff, measuring four feet six inches in length. Three scanted bone-shafts, each measuring



GREENLAND BIRD-ARROW.

about six inches and a quarter, are inserted into the wooden handle. These shafts are intended to secure a bird which the arrow-head has failed to impale. Long ago, the arrow proper was made of bone, as the lower shafts are in the specimen described, but when the natives of Greenland discovered that they could obtain iron from the Danish trading settlements, they partly discarded bone in favour of that metal. The lower portion of the handle is attached to a band which measures nineteen inches. This is slightly bevelled on the outer surface, but has on the inner side a long groove, into which the handle of the bird-arrow fits. This band assists the Greenlanders in aiming his weapon, which is intended to be thrown at Guillemots and other diving birds at a distance of fifty or sixty yards. Sven Nilsson figures some interesting bird-arrows and other early weapons in his book on *The Primitive Inhabitants of Scandinavia*. He tells us that the bird-arrow of Greenland is similar to that used in the Kurile Islands. He also identifies the former with the bird-arrows which have been found in some numbers in the bogs of Southern Sweden. These last are unquestionably of great antiquity, since they were apparently employed when the masses in which they have been found were sheets of open water. But the Greenlanders practised various devices for killing sea-fowl before the introduction of powder and shot. Braunsch's Guillemot (*Uria lomachus*), the Razorbill (*Alca torda*), and the Little Auk (*Regulus alpestris*) were and are so numerous as to render considerable exertion worth expending upon their capture. Sometimes the Greenlanders assembled in their kayaks to cut off a flock of these birds, when moultling, from the open sea. The birds then retreated to the shelter of the rocks which lined the beach, only to be surprised by women who were lying in wait for them.

A more ingenious plan is, or was, adopted in the south of Greenland for taking Gullenmots. The natives of Faberius's time employed for this purpose nets which were made of split whalebone, weighted with stones at the lower ends and buoyed at the upper ends. A line was attached to each net by means of which it was secured to the shore. The birds were not left, however, to dive into the submerged nets by accident. On the contrary, the native hunters assembled in their boats or "Kayaks," and drove the birds up to the spot where the nets were moored, when, of course, the alarmed fowl dove to escape, and became entangled in the nets. The Icelanders are, or were, ardent fowlers, and little wonder, considering the poverty of their storm-swept home. Pre-eminent among the fowlers of that wild land were the men of the Island of Drangey. Rung Gould remarks (*Iceland*, p. 243) that this island originally belonged to several proprietors. These made their rights over to one man, and the island eventually became the property of the bishopric of Holar, along with all the privileges of fishing and fowling round it. Bishop Gudmund visited the island and celebrated mass on a rock near the landing-place, called "Circular-altar." It is, or was, the custom of those who ascend the crag to stand beside it for a few moments and offer up a prayer before commencing the pious ascent. Drangey is much visited by fowling, who descend the cliffs (clung by hair or leathern ropes) and rife the nests of the seabirds. But their special accomplishment is to effect the capture of Gullenmots and Lazardolls in the way described by Olaf Olafsen in his *Iceland*, published in 1784.

The Drangey fowlers make use of half-inch boards, which are connected together by cross-pieces fastened by wooden pegs. A hole is made in the centre of each cross-piece. Hard-wood, such as drift-wood, is the best timber for the purpose, as it is necessary that the wood should not sink too deeply in the sea, for then the snates would be spoilt. The largest boards for this purpose are four feet in length and a little more than one foot in breadth. The smallest are only two feet long and eighteen inches across. A "Nederstader" consists of four of these boards of the same size; while the fifth, called the "Anchor-board," as it is nearest the anchor, is always somewhat larger, and has three cross-pieces fixed on the under side. Eighty or a hundred small holes are bored through each board at an equal distance from one another. The "Anchor-board," being the largest, has a hundred or one hundred and twenty holes.

The holes are just so large that the snares will exactly fit into them. The snares are made of horsehair, tightly plaited together, and of the thickness of a goose quill. The free end of the snare is inserted into the hole of the board, and is kept in position by means of an ordinary knot pressed against the under surface of the board to which it is attached. The boards, being set with snares in this fashion, are next roped together by means of a horsehair cord. This passes through the hole in the cross-piece, and is held in its place when fixed, by a wedge of wood. The buoy is made of the roots of drift-wood and is roped to the hind-board. A horsehair cable is attached likewise to each set of boards. Thus what the Drangy fishermen call a "Nederstader" consists of a set of five boards, four horsehair cords, five buoys, a cable, and an anchor. Each boat has five "Nederstader," and some have six. The implements when ready are placed in the boat, and the fowlers start upon their expedition, generally leaving home on the evening of Sunday, to return on Wednesday. When the party has arrived at the bird-rock, two of the least skillful men are placed by the oars to keep the boat steady, while the leader of the party slowly lowers the anchor and his mates pay out the buoys and line. When the "Anchor-board" has been placed upon the water, the remainder of the boards are lowered on to the sea. A decoy-bird called "Bantling," i. e., prisoner, is made fast to the "Anchor-board." Another decoy is fastened to the end board to attract the other birds. The wings of the decoy are placed in the nearest snares to prevent its fluttering. At the beginning of the fowling season the "Nederstader" are placed in deep water, as the birds do not seek the rocks very early in the spring, but prefer resting on the boards to flying a long distance to the bird rocks. Later on, when the birds are accompanied by their young, the "Nederstader" are set in shallow waters. When this is done, the men row off to fish, or land on some rock to eat and sleep, returning to their snares in about six hours. The boards are then carefully lifted out of the sea, the birds are taken out of the snares, and their necks are broken. The dead birds are thrown together in a heap and afterwards tied together in bunches of ten birds. As many as forty-five bunches are often tied to one line. When the fowlers reach home the spoil is divided. The men, the boat, and the "Nederstader" receive one-third each.

Another method of fowling is practised among the skerries of the Westmann Isles. The natives occupy themselves largely with bird-

hunting. They drag the young of the Puffin (*Fregata alecton*) out of the burrows in which these birds nestle by means of a sort of gaff. This consists of a large cod-hook, which is lashed to the end of a stick. This

weapon is also used in the Faroes. A more interesting engine is the hand-net which is intended for the capture of the Guillemot. Mr J. Russell-Jefferson furnished a sketch of a Westmann fowler to *Travels* of June 1896. It is reproduced here, enlarged, by kind permission of Dr Lunn. The islander is shown holding the gaff for hooking Puffins in his left hand. He carries in his right hand the fowling-net. It resembles a landing-net, mounted upon a very long handle. The peculiarity of the Westmann net is that the lower end of the fowling-pole is furnished with a small three-pronged iron fork, intended to assist the fowler in rock-climbing. It is interesting to find that the Westmann net bears a close resemblance to that used by the fowlers of Faroe. A prodigious number of birds are killed in the



A WESTMANN FOWLER.

summer-time in Faroe. The two species which are killed in vast quantities in Faroe are the Puffin and the Guillemot. Møller tells us that the total of Puffins taken in a year amounts to 235,000. Of the Guillemots no fewer than 55,000 surrender their lives in the course of a season. The fowling-net is used alike on ledges, upon the tops of the cliffs, and from boats. The fowler manipulates his weapon with such skill as to mesh his prey under most circumstances. For example, should he desire to net Puffins, he takes his seat upon the edge of a precipice which he has observed to lie in the line of flight which these birds adopt. As

the Puffin whirrs past, the fowler gives his pole a twist from below, and catches the bird as it goes away. If he is in need of Gull-lumps, he betakes himself to the breeding ledges, upon which he nets old and young at the same time. Alternatively, he rows a boat with three or four of his mates to the cliffs where the non-breeding birds assemble. Having arrived at the right place, two of the crew steady the boat in the swell, while the others endeavour to net the birds as they fly backwards and forwards in strange confusion. The net which was used in Fapoe in Lund's time was made of hempen or woollen thread, grey in colour. It was suspended between two rods, which were four feet long. These rods gave the net a triangular form, as they were secured at opposite angles to the furling-staff. The latter consisted of a round fir pole. It was an inch and a half thick at the lower end, but gradually tapered off, so that it only measured an inch in diameter at the extremity. A piece of hem served as a sort of socket to receive the net-bearing rods, which were tied in their place at a distance of eighteen inches apart.

Aquapox of Puffins, which we mentioned just now, it was once the custom among the Norse farmers to train dogs to fetch these birds out of their burrows in inaccessible precipices. This was especially the case in the Nordland districts of Tranen, Varoe, Moskoer and East. Many of the Nordland farmers held joint shares in a bird-rock. Each of these men would keep twelve, fourteen, or even sixteen dogs for fowling. The animals in question were small long-bodied dogs, mounted on short legs. At the present time, the common Norse fashion of taking Puffins is to set a net near the shore in close proximity to a breeding station. The Puffins dive into the meshes of the engine set for their destruction. An alternative is to set nets over the burrows of the birds. I had occasion to ask Professor Collett whether he recollected the way in which the breeding birds were netted. He replied, "I remember very well how the nets were set in the Puffin colonies at Varde. They were simply laid upon the earth covering a long part of the hill where the holes were most numerous. The breeding birds which left the nests were thus caught in hundreds, and the birds which were out fishing and went home to their nests were also easily caught when trying to find a passage through the meshes. Of course the netting in the sea is much more commonly used, but never so cruel, as the birds are then drowned at once." It is sad to reflect that the plan of netting Puffins which Professor Collett deprecates

was adopted upon Allan Craig in our own day (Gray, *Isles of the West of Scotland*, p. 436).

The daring and intrepid spirit which inspires the fowlers of Northern Europe to prosecute their dangerous calling among the crags of their lonely flocks and remote sheries has long found a parallel in the enthusiasm displayed by the fowlers of the Hebrides. Martin furnishes an interesting description of the economies with which the Lewis men of his day used to hurry the sea-fowl of the Flannan Islands. Their visit to the scene of their fowling operations was an annual one. They started on the expedition with an east wind. "If before or at the Landing the Wind turn Westerly, they hoist up Sail, and steer directly home again." He tells us that, when the fowlers landed, their first thought was of their religious duties. "when they are got up into the Island, all of them uncover their Heads, and make a turn Sun-ways round, thanking God for their Safety." "The biggest of these Islands" he continues "is call'd, *Island-More* : it has the Ruins of a Chappel dedicated to *St Finnan*, from whom the Island derives its name. When they are come within about 20 paces of the Altar, they all strip themselves of their upper Garments at once, and their upper Clothes being laid upon a Stone, which stands there on purpose for that use, all the Crew pray three times before they begin Fowling : the first day they say the first Prayer, advancing towards the Chappel upon their Knees, the second Prayer is said as they go round the Chappel; the third is said hard by or at the Chappel: and this is their Morning-Service. Their *Prayers* are perform'd with the like number of Prayers. Another Rule is, That it is absolutely unlawful to kill a Fowl with a Stone, for that they reckon a great Barbarity, and directly contrary to ancient Custom." Martin asked one of the fowlers whether he said his prayers at home as often and as fervently as he did when he visited the Flannan Islands. The reply is amusing. "He plainly confess'd to me that he did not: adding farther, that these remote Islands were places of inherent Sanctity; and that there was none ever yet landed in them but found himself more dispos'd to Devotion there, than any where else" (cf. *Description of the Western Islands of Scotland*, p. 12). It is worthy of remark that certain expressions were forbidden to be used upon the bird-rocks. Thus, "*Water*, which in the Language of the Natives signifies *Water*, they call *Bera*: a Rock which in their Language is *Coy*, must here be call'd *Craig*, i.e. *hard*." Other words were substituted in the

same fashion. It was accounted unlawful to kill a fowl after evening prayers, a prohibition which was extended to killing birds before the fowlers had effected their landing. We are not told how the Lewis men killed the sandow with which they landed their boat. It is not unlikely that the Guillemots and Razorbills were felled with poles as they flew past the cliffs. At least this method has been practised on the west coast of Scotland, *cp.* at Barra Head and upon Ailsa Craig. "Another method followed at Mingulay," wrote Mr Finkelson to Harvey Brown, of capturing the birds is "by means of a heavy pole. The natives sit on the verge of the cliff, and the birds come hovering above and within blow distance. No blow on the body appears to disable the birds, but the least knock or blow on the heads or necks hinders them, though no blow, however hard, kills them outright. They are apparently dead when they fall down, but if the necks be not broken, they will soon recover" (*A Finner of the Outer Hebrides*, p. 163). Similarly, David Rodan, who was tacksmen of Ailsa Craig in 1826, not only undertook to kill eighty dozen Puffins with a pole in one day, but actually accomplished the feat (*Birds of the West of Scotland*, p. 436). But the chief method of capturing Guillemots and Razorbills upon Mingulay is identical with the use of the fowling-net, a running noose of horsehair being mounted on the extremity of a fishing rod, and dropped round the neck of a bird. As many as 2000 Guillemots are snared in this manner in a single day's fowling upon Pabbay.

The men of St Kilda pride themselves upon being most dexterous in the use of the fowling rod. Long ago the snare was made of cow's hair, but horsehair is now imported into the island for the convenience of the fowlers. If a St Kilda man wants to snare a Puffin or Razorbill he makes a noose, *tuare, tuare*. Upon heaving this the bird looks round in surprise, and the noose drops over its head. The fowlers climb with bare or stocking-foot and make free use of ropes. They carry the birds which they snare by forcing their heads under the waist-belts which they wear. Puffins are picked off in the same way. The fowler quietly stalks his bird as she sits upon a ledge of rock, and seizes the right opportunity to jerk his snare round her neck.

The Puffins are chiefly snared in another way. Rows of running nooses are tied to long cords at a distance of about three inches apart. The strands of the horsehair nooses are moistened to stiffen them, and are set upon the rocks and knolls of turf upon which the Puffins like to

slight. The ends of the strong cord which bears the snares are weighted with heavy stones to keep them in their place. The snares stand out at right angles to the ground. At first the Puffin only bites the snare in front of him, but he soon shuffles forward and puts his feet into it, so else dies up with the snare round his neck. The first Puffin caught in the beginning of the season is partially plucked and then released. There is reason for conjecturing that the Puffins which are plucked become white in the next moult. It is possible to dispense with nooses in some rare instances. My friend Mr Cherry Kearton managed to stalk a Fulmar and capture her with his hands, but the birds are usually too crafty to be surprised except by noosing. When a St Kilda fowler wants to snare Puffins with the fouling rod he sits quietly down upon the grass beside the birds, holding the rod in his hand. He gradually eddies nearer and nearer to the birds as they sit with their heads turned towards the sea. At last he thrusts the rod close to some bird which is within reach. The Puffin at first bites at the noose, and then puts its head through it. The Puffin is more in request for the sake of its feathers than for purposes of diet. The snared Puffins are plucked, cleaned, and then broiled upon the fire. The use of a snare attached to the end of a long rod is probably of considerable antiquity. At any rate, it was practised as far north as Shetland and as far south as the Isle of Man.

Martin expatiates upon the use which the St Kilda fowlers make of the eggs of sea-fowl:—"They preserve their Eggs commonly in their Stone-Pyramids, scattering the burnt Ashes of Turf under and about them, to defend them from the Air, driness being their only preservative, and moistness their Corruption. they preserve them Six, Seven, or Eight Months as aforesaid. and then they become Appetizing" (*A Voyage to St Kilda*, p. 66). We learn from the same author how some sailors once landed on the Island of Sca from a cock-boat, and helped themselves liberally to the eggs of the sea-fowl. The St Kilda people are excessively jealous of anyone taking a bird or egg from their islands. Payment is expected for the merest trifle, even if obtained by the exertions of a visitor himself. One of the crew of the cock-boat above mentioned came to grief for want of such a precaution. "So careful was one of the Seamen as to put them (eggs) into his Breeches, which he put off for this use, some of the inhabitants of St Kilda happened to be in the Isle

that day; a parcel of them were spectators of this diversion, and were offended at it, being done without their consent: therefore they devised an Expedient, which at once rebeld the Sennmen of their Eggs and Breeches, and 'twas thus: They found a few loose Stones in the Superficies of the Rock, some of which they let fall down perpendicularly above the Sennmen, the terror of which obliged them quickly to remove, abandoning both Breeches and Eggs for their safety, and those Tarpawlin Breeches were no small Ornament there, where all wore girdled Plaid: (*Le Voyage to St Kilda*, p. 38). It would be tedious to dwell at much greater length upon the British methods of taking sea-fowl and their eggs. The "Egging" practised at Fife has been described on many occasions. Let me refer, however, to the fowling which was formerly in vogue upon the red sandstone precipices of St Bees:—"And Ther is fowles ther builds in the St. Ives Rock: it is culled: these fowles as: ligg and swift of wing as duck and mallard: And builds in the Rock they hangs over the sea: and They let downe a broad nett from the Topp of the Rock And frights The fowles of ther nests, and the nets catch them: They cannot flye when they are half a mile from the sea" (*Sandford MS*, p. 18). The same local writer alludes again, in another portion of his MS, to "a great broad nett cast by two men," which caught the birds "flying of ther [nesting shelves]." This statement refers to a form of fowling practised prior to 1675. Pennant, a century later, alluded to St Bees as "noted for the great resort of Birds." He is silent as to any fowling being carried on at St Bees. We may infer that the system had become obsolete. Sandford's statement is important. It is a misfortune that the original MS is mutilated. I have failed to discover any additional evidence of a broad flight-net being employed to take sea-birds from their breeding ledges.

I have not been able to learn many particulars regarding fowling in Ireland. It is well known that the ancient Irish had certain scruples as to taking the lives of birds. Yet fowling was a recognised employment upon some parts of the Irish coast even in recent times. Thompson wrote in 1832, "The birds now snared, or 'Dulled' as it is called at Horn Head, for the sake of their feathers, are Puffins, Razorbills, Guillemots, and Kittiwakes,—all the other species of *Larus* are too wary to be thus 'gulled.' In less than two hours, my informant has snared seventeen dozen, or above two hundred birds, and thirty-six dozen were

known by a gentleman of my acquaintance to be taken within a similar period by two men: many years ago these feathers produced 13d per lb. but now they bring only 6½d. Birds breeding in caves here are some times caught in nets drawn across their entrances.' Thompson learnt also, in 1834, that Razorbills and other birds were captured on the Arrian Islands for the sake of their feathers (*Nat. Hist. Iceland*, Vol. III. p. 231). I have not received any information about fowling from the coast of the United States. We know from Audubon that the Puffin is occasionally eaten upon the coast of Labrador. The same authority affirms that, when bait is scarce, the Labrador fishermen kill large quantities of Puffins in order to bait their hooks with the flesh of these birds (*Orn. Biogr.* Vol. III. p. 198). The waters of the North Pacific afford a home to numerous species of Auk. These birds are hunted by the natives of the islands which they frequent in the breeding season. Thus the Aleuts of the Commander Isles catch vast numbers of the Tufted Puffin (*Fratercula cirrhata*) in the spring of the year. It is easy to understand that the flesh of these birds, though fishy in flavour, must afford an agreeable variation to the *sewa* of those natives who have to subsist upon salted seal-flesh during the winter months. As soon, therefore, as a sufficient number of these Auks are observed to have arrived in the vicinity, the natives look out for a favourable opportunity of securing a supply of the birds, both as fresh victuals and also for purposes of clothing. The Aleuts of the Commander Isles do not capture the Tufted Puffins out at sea, but arrange their raids upon the Puffin-colony in accordance with the habits of the birds.

This Puffin, locally entitled the 'Toporki,' shares with some allied species the peculiarity of appearing in great numbers near shore one day, while next day the birds have all disappeared, staying away on the high seas for the next two days, when they again take a "land-day." Dr Stejneger visited the island of Toporkoff, so called on account of its being a favourite haunt of this Puffin and found it to be a level plateau about 50 feet above the sea. A few Puffins crossed the island on the evening of his arrival, but the fowling did not commence until the following day. "The ornithological spectacle at daybreak the following morning was quite different from what it had been the foregoing day. Hundreds and thousands of *Larus cirrhata* crossed and recrossed the island, coming from all directions, and disappearing on the opposite side, in order to return

again and again. A wonderful sight! The black birds, with their conspicuous white face-mask, the long and floating ear-tufts bent like the horns of a ram, and the large green and red-coloured beaks and red legs, looked more like fantastical creatures of the tropics than inhabitants of the less extravagant north." Dr Stejneger informs us that the native device for taking the "Toptoki" is based upon the apparent difficulty of the bird to make a sudden turn in its straight flight. A piece of under-meshed network, stretched on a hoop about four feet in diameter, and fixed to a light pole of ten or twelve feet in length, is the engine by which the capture of this Puffin is effected. The Aleut takes the bird in full flight, by suddenly throwing the net in the way of the bird which flies directly into it, and thus falls to the ground and is captured.

"When I turned out," writes Dr Stejneger, "the Aleuts were already in their places waiting for the rush of the birds, which had not yet begun. They were scattered pretty evenly around the island, seated on the edge of the bluff. Their immovable figures were clearly visible against the gray western sky, and now with the dawning day we discern the net at their side, but, what is more surprising, each one is surrounded by a small flock of 'Toptoki.' These stretch their necks and point with their bills up in the air in quite an unaccountable manner, remaining so long in that rather unusual position, that we become suspicious. A closer inspection reveals that these are only decoys, empty skins, held in position by a stick protruding between the jaws and with the other end thrust into the ground. Before long the sea and the horizon become lively with birds, and soon the sky above us literally swarmed with these red-and-green-benaked, white-masked, yellow-horned masses. It was 'land-day' indeed! I only wondered that they did not suffer collision with each other during their airy sailing, for they were as thick as May-flies round an electric light, and flew both straight and rapidly. When a 'Toptok' crosses overhead of an Aleut, he suddenly raises his net, the bird, unable to turn aside runs into it with a clash, falls to the ground, and in a twinkling is added to the heap of other unfortunates with broken necks" (*Occ. Explorations on the Commander Isles*, p. 57). Turner describes the Tufted Puffin as seen in considerable numbers along the northern shores of the Alaskan Peninsula, as also at the Pribilof Isles and elsewhere in those seas. The skin of this bird is extremely tough, and as the plumage is nearly uniform in colour, these Puffins are much sought after by the natives.

Turner states that in his experience the natives utilise the days unfavourable for hunting Sea otters, in visiting the haunts of the Tufted Puffin and the Horned Puffin (*Platycotis rostralis*), in order to catch these birds for the sake of their skins. The Aleuts whom Turner met with do not seem to employ any nets for catching Puffins, preferring to capture the birds in their breeding-holes in the rocks. Puffins are capable of inflicting severe punishment to the hand, and the Aleuts either wear a leatheren glove or wrap a sleeve round the hand. The native fowler endeavours to catch the bird by the wing, as the claws are then used by the bird to retard its being dragged out of its crevice in the rock. When the fowler returns home, the preparation of the skins of the birds which he has caught commences. The operator first cuts off the beak at the edge of the feathers, and turns the skin inside out. The skin is then hung up to dry, the wings having been previously cut off. When severe weather keeps the women folk indoors they proceed with the further preparation of the skins, which are then washed afresh, scraped, and finally chewed to make them pliable. An Aleut woman will go on a visit to a neighbour, to have a 'Chy-pet' or tea-party. In the intervals of drink and gossip a bird-skin will be drawn from beneath the folds of her garment, and she will then as complacently chew the skin as one of our country dames will draw out her knitting (and pipe) to while away the time. The skins are converted into a garment common to both sexes, called the 'Parka,' which is worn with the feathers inside, the flesh side of the skin being ornamented with stripes of paint of various colours, such as vermilion, green, blue, or black. Before the introduction of civilised clothing, this 'Parka' was the only garment worn by the Aleuts. If required for an adult man, it was made of forty-five skins. Stoeneger remarks that the yellow feathers of the ear-tufts of the Tufted Puffin are used for decorating the garments of the Aleuts.

{The illustration is intended to explain the pursuit of Divers by North American Indians.}



CHAPTER L.—OSTRICHES AND EMEUS.

THE great majority of flightless birds (*Ratites*) inhabit wide areas of desert or open plain. Hence their keenness of vision enables them to distinguish the approach of an enemy at a great distance. They are thus enabled to provide for safety by a timely display of their remarkable coursing powers. But even the endurance of the Ostrich (*Struthio camelus*) meets with a severe test when pitted against the fleetness of an Arab steed, provided always that the horse of the Sahara has undergone the requisite training for such a trial of strength. Abstinence from water and a diet of dry dates are the conditions of the preparation imposed by the hunter of North Africa upon his gallant mount. Canon Tristram assures us that it is generally estimated that the capture of an Ostrich must be at the sacrifice of the life of a horse or two. From him also we learn that, as soon as a party of Ostriches are descried by the hunters of the wilderness, two or three riders are detached to follow the birds at a gentle gallop. These men endeavour only to keep the birds in sight, without alarming them or driving them at full speed, otherwise they would soon be lost to view. "The rest of the pursuers leisurely proceed in a direction at right angles to the course the Ostriches have taken, knowing by experience their habit of running in a circle. Posted on the best lookout they can find, they await for hours the anticipated route of the game, calculating upon intersecting their path. If fortunate enough to detect them, the relay sets upon the now

fatigued flock, and frequently succeeds in running down one or more, though some of them horses usually fall exhausted in the pursuit. The bird, when overtaken offers no resistance beyond kicking out sideways' (*The Great Sahara*, p. 118).

Van Houtlin tells us that the Arabs of the desert employ snares to capture the Ostrich by its feet. The engine employed is similar to a device by which the same hunters procure the Gazelle. It consists of a ring of tough wood, which is set inside with smooth spokes or teeth of wood all radiating towards an opening in the centre. It thus resembles a wheel from which the centre has been removed. The trapper searches out the places to which Ostriches resort, and arranges a series of these traps in the runs of the birds. The trap is often set over a small hollow into which the Ostrich treads, thus inserting its foot well into the centre of the trap. A running noose is placed upon the surface of the trap, which is drawn round the foot of the bird when it treads upon the snare. The trap is secured to a strong stalk, or to the roots of some firmly rooted bush (*Fogel Nord Ost Africa*, Vol. II. p. 929). A similar device is used to catch the Abyssinian rhinoceros, but the idea of this trap is not of purely Ethiopian origin. The ancient Greeks recognised this engine, which they called "Polestrabe," as a natural adjunct of the chase of Red Deer. The natives of India catch antelopes in the Pungabon a similar way at the present day. Hartmann affirms that some Bedouins hunt the Ostrich on dromedaries. This is confirmed by the statement of the late Captain Burton, who records that the natives of Somaliland hunt the Ostrich on camels, and shoot it with poisoned arrows (*First Footsteps in East Africa*, p. 163). So, too, the Bushmen of South Africa destroy the Ostrich with poisoned arrows, or capture the bird with the agency of pitfalls, which were much used for capturing all sorts of big game before the era of cheap guns had commenced to supersede the uses of antiquity. Strabo bears witness that the Stentophagi, or Ostrich-eaters, of Arabia, shot Ostriches with the bow. They also adopted the ingenious ruse of stalking the bird under cover of the screen of an Ostrich skin. The fowler used his right arm to bear aloft the head and neck of the dummy. With his left hand he scattered seed, to entice the quarry within range of his weapon. Nor was this piece of strategy contemptible. It required considerable intimacy with the actions of the species whose gestures were simulated. Harting describes the imaginary bird as imitating the real

bird so nicely that it is difficult to detect the difference between the two at the distance of a hundred yards: "Now it (the dummy) turns its head as if keeping a sharp look out; now it pokes at the verdure on the ground, or at any water-melon or shrub which may be in its way; now it shakes its feathers, sometimes trotting and sometimes walking, until at length the wary bushman gets within gunshot of some unlucky bird, and when having discharged his arrow, one of the flock runs off in any direction, the sham bird runs too. The rest of the flock are quite unable to understand why their comrade should run suddenly away, and then lie down, and they allow the enemy to follow them up until they share the same fate. The great difficulty on these occasions is to get to the head of the flock, for it causes a bird wounding him (the Fowler), away they all go, and the trouble is taken for nothing" (*Ostriches and Ostrich Farming*, p. 44).

An ancient but cruel expedient for killing Ostriches was that of surrounding the nest of the ostrich with concealed spears. These weapons were set in such a way that the poor bird transfixed its body in returning to its eggs or young. De Laet states that the Arabs sometimes course a party of Ostriches against the wind. When the hunters finally overtake the birds, they either shoot at them or endeavour to cripple them by hurling throw-sticks at their legs. The clubs used for this purpose are made of heavy hard grained wood, and the Arabs excel in the manipulation of such weapons (*Barbarians and the Moors*, p. 44). The Nomad tribes of Patagonia are no less successful in hunting the Rheas or Ostriches of the New World than the lawless sheikhs of the African continent. Becholtz gives many interesting details of the persecution which is meted out to *Barroco Rheu* (*Chloa barroco*). He states that this species is hunted by mounted men who endeavour to overthrow the Rheu by casting the "Bolas" around its legs in such a way as to bring the bird to the ground. The spear-man then dismounts, breaks the neck of his victim, and attaches the body, previously disembowelled, to his saddle. The "Bolas" which Becholtz found in use were of two patterns. The first consisted of two round stones or pieces of lead, covered with leather and joined together by a thong of from six to eight feet. The other missile consisted of three balls, united by thongs to a common centre. Mr C. S. Smelt defines the "Bolas" used near Buenos Ayres as consisting of three pieces of lead, heavy wood, or even stone, rudely fashioned into a rounded

shape, eased in raw hide, and attached to thongs of the same material which are joined together in the centre. This is the engine adopted by those who aspire to catch the Common Rheu (*Rhea americana*). The young birds of that species are occasionally secured alive by the simple device of running the birds down, and throwing over them a native garment known as the 'Poncho' (*Ostriches and Ostrich Farming*, p. 77). Commander Masters, R.N., mentions the curious fact that the Patagonian Indians frequently circumvent the sagacity of Darwin's Rheu in the winter time by driving a party of these birds into their rivers. Rheus are powerful swimmers, but their legs soon become benumbed by cold. The birds are consequently drifted ashore by the current and being exhausted on regaining *terra firma* are easily captured. Snowy weather is also unfavourable to these Rheas. Their eyes appear to be affected by the glare of the white snow, and their plumage becomes heavier. But the usual method of catching Rheas is that already indicated, the chase of the mounted hunter who sounds the pampas with his "Bolas" coiled ready for use. Captain Masters gives the *modos operandi* in the language of an eyewitness: "Two men start off and ride at a gallop round a certain area of country lighting fires at intervals to mark their track. After the lapse of a few minutes, two others are despatched and so on, until only a few are left with the Cacique. These spread themselves out in a crescent, closing in and narrowing the circle, on a point where those first started have by this time arrived. The crescent rests on a base-line, formed by the slowly proceeding line of women, children, and baggage-horses. The Ostriches and herds of Guanaco run from the advancing party, but are checked by the point-men, and when the circle is well closed in, are attacked with the 'Bolas,' two men frequently chasing the same animal from different sides. The dogs also assist in the chase, but the Indians are so expert with the 'Bolas,' that unless their horses are tired, or they happen to have gambled away their 'Bolas,' the dogs are not much called into use" (*At Home with the Patagonians*, p. 76).

It is difficult to read Commander Masters' description of Rheahunting, without being reminded of the fate which Bennett's Cassowary (*Cassuarus bennetti*) experiences at the hands of the natives of New Britain. This fine bird makes its home upon the grassy plains and high tablelands of the northern peninsula of that island. The indigenes take individual birds of this species by several different devices. Then

favourite plan "is to light fires in a large circle of about a mile in circumference in the long grass on the plains, leaving one opening in the circle, at which are stationed several men armed with spears. The fire is made to burn towards the centre of the circle by men and women on the outside, who beat out with bushes all fire likely to spread in any other direction. This drives the Cassowary that are within the circle to the opening, where they are speared by the men stationed there for that purpose" (*P. Z. S.*, 1880, p. 493).

Mr. Wilfred Powell, whose remarks have just been quoted, tells us that this Cassowary, like the Ostrich, is sometimes taken in a running noose. The hunter who has found a nest of the "Morrop" or Cassowary prepares a running noose which he sets around the nest, taking care to cover the ground with sand, so that it is invisible. The fowler takes the loose end of the rope, which is made of the bark of a tree, and winds it round his own body. He then squats behind a tree in the close vicinity of the nest until the parent bird returns. When the Cassowary is seated on the nest, the savage pulls the rope. The noose then tightens round the legs of the Cassowary. The man then runs with the free end of the rope to a tree and twists the rope around it. The rope thus retains the struggling bird within the noose until it is tired out and helpless. It is then despatched with the spear.

A singular and tragic misadventure once overtook a native fowler who had set a noose on the nest of a Cassowary. The unfortunate man fell asleep while waiting for the arrival of the bird. In the meanwhile the bird came to its nest and hid its egg. It then endeavored to leave the nest, when one of its legs became entangled in the noose. Thus the man, who had the rope wound round his body, was dragged along the ground, and struck against a tree, which stunned or killed him. Both the body of the man and the bird were found some days afterwards, still fastened together by the rope, at some considerable distance from the nest.

The oil extracted from the fat of this bird is considered a valuable specific for rheumatism. The sharp-pointed claws from the toe of the bird are used as points for spears in one part of New Britain. The leg bones are made use of to balance the butt-ends of spears. It is by the spear that the blacks of Victoria usually obtain the Emu (*Dromas-maculatus*), the flesh of which is forbidden to the boys and young men.

But this species is also obtained in other ways. Ernest Giles mentions that he found "yards" erected for the capture of Emus and Wallabies in the interior (*Central Australia*, pp. 43-71). The Common Emu is replaced in Western Australia by the Spotted Emu (*Dromaius maculatus*). It is of this bird I imagine, that my correspondent Mr Tom Carter has had an interesting experience. "In the great drought of 1890-91," writes Mr Carter, "Emus died in great numbers. I have seen the natives,—who saw some Emus coming along the beach, looking for a drink of water,—hide behind the sand hummocks just off the beach, in a semicircle. When the birds were opposite, the natives would rush out and if there were a sufficient number to cut off the Emus from the land, the birds would rush into the sea, in which the blacks soon swim them down. Sometimes the Emu seems very stupid or inquisitive. A flock will sometimes come right up to a house or hut, and if one keeps still they come closer. A low whistling seems to help to draw them, and then if one is shot out of the mob and the position of the sportsman remains immovable, the remaining Emus will rush a little and then come back to walk round and stare at their wounded companion, thus affording an easy shot. At other times the birds will go off at full speed at a distant view of man or horse. If an Emu is to be ridden down by a horse, one must get a close start, and hustle the bird as much as possible, for if it gets what may be termed its second wind, the chase may be even up as hopeless. The usual way of shooting these noble birds by whites is to be in wait by a pool on a hot day; but I am glad to say that the law now forbids their slaughter. When I was on the Minkta river some years ago I noticed a small clay hole of rain water much frequented by Emus. It was at some distance from the river pools, and other surface water was fast drying out. Accordingly I went out to it with my rifle and gun, accompanied by two natives and a sheep-dog. Arrived at the pool, I sent one native up a thick, scrubby tree, to keep watch while we waited close under it amidst the grass and weeds. In about ten minutes the native in the tree reported that three Emus were approaching. As the birds halted beside the water, I fired with the rifle and hit one, but it ran away as if nothing had happened (we found it dead two days after). In a short time two more Emus came up, and I dropped one dead. While we were skinning it, we heard the pumping or booming noise these birds sometimes make, and looking up, we saw three

more birds watching us. I crawled back to my gun, and getting them well ready in a line, I blazed away. The chase fell, but on the natives rushing up with a yell one of the Emeus rose and commenced running in a circle round the pond. The dog and natives pursued it, and it was 200 ft. sport for a while, as sometimes they would all fall together in the water with a splash only to struggle out and circle round again. I dare not risk another shot, and at last one of the natives drew a 'Kylie' from his belt and by a well-directed shot broke the bird's neck. The dogs' side was badly ripped by a kick received in the skirmish. Thinking that enough for one morning, I walked back to the station and sent out other natives to assist in mounting the spoil. The Maoris have frequently been referred to in the work as ancient hunters. I can hardly conclude my labours without alluding to their pursuit of the Kiwi (*Apapapa*). The North Island Kiwi (*Apapapa pallasi*) in particular, is, or was, much sought after as an article of food. The chase of the Kiwi is carried on by means of muzzled dogs, which carry bells to guide their owners as to the course that they take. The Kiwi is nocturnal in its habits, and passes the hours of daylight in its burrow. Sir Walter Buller has described at great length his experiences of hunting Kiwis. In an expedition of a week's duration to a Kiwi preserve, he and his Kiwi-hunters secured forty Kiwis of all ages and nine eggs. The birds are taken by the hand when run to ground by the dogs, but not without resisting capture with their sharply-armed feet.

[The hunter depicts the chase of the Ostrich as pursued in Southern Africa.]

"What should delight me like the news of friends
Whose memories were a solace to me oft,
As mountain-baths to wild fowls in their flight?"

ADDENDA ET CORRIGENDUM.

- Page 18, line 15, "little birds of African origin." Dr Percy Rendall describes to me, orally, a curious native bird-trap which he found to be employed on a marsh adjoining the Upper Shire River for effecting the capture of a small Finch (*Centropus*). The species in question is fond of feeding on the ground about the roots of the Bangwe trees, which grow like osiers in the swamps. The natives construct wicker traps made by interlacing lean-to twigs, sloping away at the sides to form a sort of oval cage, measuring about eighteen inches in length. This cage is entered by two lateral orifices, left open for that purpose. A train of Mapira or native Millet is strewn upon the ground leading into the trap. The Finches are thus enticed into the trap, in which they remain, being unable to discover the narrow passages which they were induced to enter by the food sprinkled outside. Dr Rendall never met with the same pattern of trap in any other part of Africa.
- Page 29, line 9, The Kingfisher has been known to be taken in the 'Uccellanti', a remark which applies to , Hawks of several species." Sacerdote Antonio Tait of Trento, records that a no less interesting visitor than a Short-toed Eagle (*Hierosias gallicus*) was captured in the nets of a "Roccolo" at Sardinia on September 18th 1895 (*Avicola*, 1897, p. 97).
- Page 131, line 20, "the *Bojads* are captured with lined twigs." Vallon records (*Alauda* 1897, p. 31), that he found a Yellow-browed Warbler (*Phylloscopus sibilatrix*) among a bunch of Fincrests at a shop in Uline in October 1893, and that this rare Warbler had also been taken with lindlime: a fate which occurred to a second specimen in September 1896.
- Page 273, line 17, for 1826, read 1626.
- Page 399, line 17, "the Panpok." This engine (a model of which was sent to the author by Mr Charles Hose) is an Eastern form of the "Sprint," figured at page 454.

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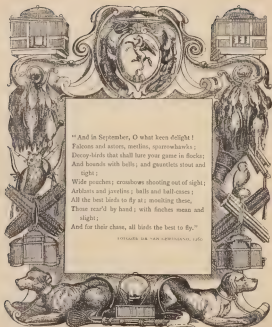
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"And in September, O what keen delight !
Falcon and astor, meadow, sparrowhawk ;
Decoy-larks that shall lure your game in flocks ;
And bounds with bells ; and gambolers stout and
tight ;
Wide pouches ; crossbows shooting out of sight ;
Arbalests and javelins ; balls and ball-cases ;
All the best birds to fly at ; moorings these,
Thou rear'd by hand ; with fitches mean and
slight ;
And for their chase, all birds the best to fly."

ILLUSTRATED BY HENRY LEITCH, 1870.

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